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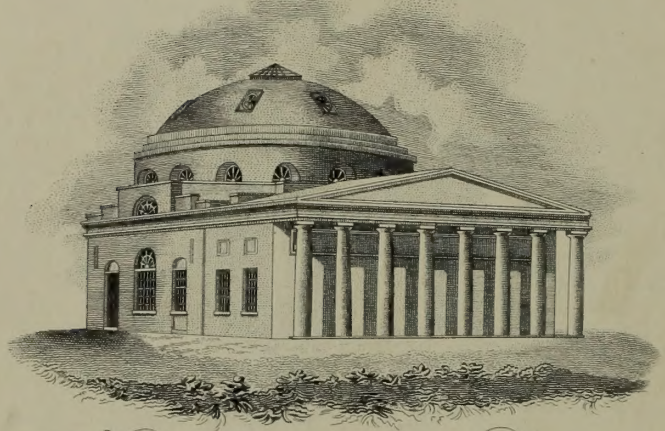

University of Maryland

University of Maryland Theses

Early Doctor of Medicine and Doctor of Physic Dissertations with Corrected Tables of Contents

These manuscripts described as either an Inaugural Dissertation or an Inaugural Essay were presented to the University of Maryland for the Degree of Doctor of Medicine and/or Doctor of Physic during the years 1813-1887. The individual dissertations were bound together during the 1940's. The original tables of contents for the bound volumes contained multiple errors in authors' names, titles, and/or years. To address these errors, an additional "Corrected Table of Contents" has been inserted at the beginning of each volume.

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[1] Example of volume with binding company stamp on verso of cover: "Bound by Charles Elliot 1901, Rosedale St. Baltimore – We bind books of all descriptions". Inscription in pencil next to binding company stamp "Rebound:" followed by date ink stamp JUN 14 1940.

[2] Title page is on the back of the last page.

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HSHSL 2012 for the UM Digital Archive. Sources consulted for corrections: Original Dissertation; University of Maryland Medical Faculty, Matriculation List, 1851-1892; Cordell, Eugene F. "University of Maryland, 1807-1907" (New York : The Lewis Publishing Company, 1907), Volume 2.

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UNIVERSITY OF MARYLAND

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# A Thesis
on
# Pneumonia

Respectfully submitted to the
Faculty of Physic
of the
University of Maryland
by
Oscar A Thornton
1879

WM
18982

Pneumonitis.— In the consideration of the above subject. I shall confine myself to the description of that form of the disease, which is known as Acute Lobar Pneumonitis. This for two reasons; first, that a full consideration of all the forms of Pneumonia, would occupy more space than is customary to give to a medical thesis, and secondly, that a consideration of all the forms of this malady, would be virtually a consideration of just so many separate and distinct diseases; for each variety differs from the other in its morbid anatomy, etiology, course and termination; and the treatment which would be necessary in one form, would be inappropriate

in another, Certainly the resemblance between Acute Lobar Pneumonitis and the lobular pneumonia of children (Atelectasis pulmonum) is anything but striking; and a comparison between this again, and chronic caseous pneumonia of the apex would be equally strained.
Although the relation between the acute and chronic form is much nearer, the former in some cases running into the latter, nevertheless, the nature of the morbid process in each is essentially different; it being very possible to conceive of cases, in which both diseases could coexist concurrently and independently in the same lung; the one implicating the upper lobe, the other invading the the lower. For these reasons I shall

confine my attention to the consideration of the one form, thereby fulfilling the requirement of the University; by preparing a thesis on some one medical subject, avoiding alluring bypaths which would lead to the discussion of the many.

Acute Lobar Pneumonitis. — This disease, is an active inflammation affecting chiefly and sometimes exclusively the aerating portion of the parenchyma of the lung. It attacks by preference the lower lobe that of the right side being most frequently invaded.

The malady is variously designated according to the extent of the inflammation, the prominence of its complications and the nature of its symptoms

Thus when both lungs are implicated it is known as Double Pneumonia, when the associated Bronchitis or Pleurites is prominent it is designated respectively as Broncho Pneumonia and Pleuro Pneumonia. Or if it be associated with great constitutional weakness, and ataxic symptoms of a typhoid character be present, it would then be characterized as Typhoid Pneumonia.

The form of the disease known as Interstitial Pneumonia and described by some authors has been proven by Waters, in his admirable article on this subject, to have no existence, he having demonstrated the amount of connective tissue in the lung to be too insignificant to

allow of the condition

—o—

Morbid Anatomy.— Pneumonia, whether its course be favorable, or unfavorable, may be divided, for convenience of description, into three stages, first the stage of Engorgement; second that of Hepatization and third that of either Resolution or Purulent infiltration as the case may be. If the affected lung could be examined at the time of the inception of the disease, the first change observed, would no doubt be contraction of the radicals of the pulmonary artery, in response to the primary irritation, this would be followed, by a dilitation of the

arterioles, with flooding of the capil-
-lary field and consequent slowing of
the blood current. The pulmonary
membrane at this time will be found
according to Waters, to be dry; the
secretion proper to the part being
suppressed as a result of the alter-
ation in the blood supply. The
changes above described usually take
place in a very few hours time, and
if the disease be not checked, all
the phenomina of acute inflammation
will soon be manifest. As the stage
of engorgement advances all of the
bloodvessels of the part which belong
to the pulmonary circulation, arterioles
capillaries, and venules, become inva-
-ded, their calibre is greatly increased

their course rendered more tortuous, while the blood current becomes slower and slower until at those points where inflammatory action is intense complete stasis occurs.

The condition known as hypostatic congestion is sometimes mistaken on the post mortem table, for Pneumonia in its first stage, Hypostatic congestion however is usually bilateral and affects only those portions of the lung which are most dependent, a whole lobe being rarely involved, Pneumonia on the other hand, is generally unilateral and always involves the whole of one or more lobes. By attention to these facts the two conditions will be readily

differentiated

As the stage of engorgement progresses a large quantity of viscid and rapidly coagulable lymph is poured out into the air-cells, which soon fills and obliterates their cavities. The lung is then said to have become hepatized.

Second stage.— This has been divided by some authors into two periods — first that of Red and second that of Gray hepatization, this division however is disallowed by other very prominent authorities. Says Flint, "In this condition the lung usually contains but little blood and presents a pale anemic aspect; hence the term red

hepatization is inaccurate.
The following explanation will in all probability serve to reconcile these conflicting views. After the stage of engorgement is far advanced, and the air-sacs have become filled, but as yet not distended with the exuded matters; the vessels will be still found to be full of blood.

The blood is now of a dark color the function of haematosis in the part being completely in abeyance. Under these circumstances a dusky red hue is imparted to the affected lobe, and a combination of conditions is present to which the name Red hepatization would not be at all inappropriate.

The inflammation continuing in its

intensity, the air-sacs become distended with exudation which after its consolidation reacts mechanically upon the blood vessels; emptying them of their contents by pressure at each act of expiration. In consequence of this recedence of the blood the part becomes pale and anemic, this condition obtains in the stage of gray hepatization.

When hepatization is complete the weight of the lung is greatly increased so much so that pieces thrown into water will rapidly sink. It also becomes quite friable, breaking down readily under pressure of the finger.

When cut across the cut surface will present a granular appearance; this is due to a partial extrusion of

of the contents of the alveoli as a result of the elastic contraction of the pulmonary tissues.

A microscopic examination of the exuded matters will show a mixture of fibrew, lymph, red and white blood cells, fat globules, etc.

If the disease run a favorable course, the ~~contents~~, the contents, of the air-sacs will undergo liquifaction and will be removed, either by absorption or expectoration or both; after which the pulmonary membrane will regain its normal condition.

If the progress of the disease be unfavorable, absorption will not take place, pus will be exuded into the air-sacs and the

pass into the stage of purulent infiltration. In some cases the lung tissue will break down and the cavities thus formed will become filled with pus, constituting pulmonary abscess. In others when the inflammatory action has run very high especially if the patient be weakened by disease, portions of the lung may become gangrenous as a result of interference with the nutrition of the part, these accidents are however rare.

A slight amount of bronchitis usually coëxists with pneumonia; but when this condition is prominent it should be regarded as existing coëincidental with, rather than as a result of pneumonia. In the

large majority of cases that portion of the pleura covering the affected lobe will be found in a state of inflammation. The disease, rarely if ever involves the whole of this membrane.

Clinical History. — The onset of Acute Lobar Pneumonitis is sudden occurring in the majority of cases without premonition. It is usually ushered in with marked rigors, which are soon followed by febrile movements associated with those symptoms which are characteristic of all inflammatory diseases; such as pain, which in this disease is usually located in the mammary region, loss of appe-

thirst; cephalalgia, and in some cases delirium.

Pain is usually an early symptom, It is sometimes intense and is very similar in character to that of pleuritis, to which condition it is indeed due, It is, however very variable in amount being often entirely wanting. After the disease passes into the second stage, the pain diminishes or ceases altogether on account of the limitation of movement in the affected side. Cough is also an early symptom and is usually associated with more or less expectoration the appearance of the matter expectorated, after the first day, may be considered pathognomonic of Pneumonia; it has

rusty color which color is due to the intimate admixture of blood cells with ther products which are forced into the air cells and finer bronchial tubes.

The sputa of Pneumonia is thick and tenacious, and is expectorated with difficulty, In some cases of the disease however ther is no expectoration.

Fever, neither of the early symptoms is present throughout the course of the malady, In some, mild cases, the thermometer seldom records a temperature higer than 104°. When it exceeds this point and reaches 105° or 106° the case should be regarded as one of unusual gravity. If in the course of the affection there should be a sudden increase of heat such increase would

mark either the invasion of a new lobe, or the onset of some other inflammatory disease. The frequency of the respiratory movement is often greatly increased. The normal ratio between the respiration and pulse beat, which is as four to one, is here greatly disturbed and although the pulse necessarily runs high, the ratio will sometimes be found to be as two or even one and a half to one.

Two factors combine to produce this result; first, on account of the associated pleuritis, the movements of the chest in deep inspiration are painful, the acts therefore are shortened and quickened. And secondly; the function of a large portion of the aërating surface being in abeyance, respiration must necessarily

be hurried in order to maintain the function of haematosis. In some cases of Pneumonia especialy when a large amount of lung tissue is involved dyspnoea will be urgent, and any movement especially that of rising in bed increases the distress.

The pulse will be found to vary in different cases, in some it is firm and incompressable while in others, it is weak, thin and thready, the former condition when associated with dyspnoea headache and other symptoms of cerebral fullness, is described by the older writers, as sthenic, while the latter, taken in connection with other signs of constitutional weakness, as asthenic Pneumonia. A circumscribed patch of redness is often observed on one or both cheeks, this

appearance has been examined as path-
-ognomic of the disease, and if the hectic
flush of phthisis be excluded, it furnishes
a valuable diagnostic sign. When
it is unilateral it will generally be found
on the side corresponding with the affected
lung. The above symptoms are those
which characterize the first and second
stages of the disease, the one stage
passing insensibly into the other.

In the stage of resolution all the
symptoms undergo mitigation, the cough
and expectoration become less difficult.
Fever subsides, the strength and appetite
improve, until convalescence is fully
declared. If however, the disease
pass into the stage of purulent infil
tration the strength declines the pulse

becomes more rapid and feeble, expectoration purulent, abscesses may form in the lung, and death by asthenia speedily follow. Gangrene of the lung occasionaly occurs this complication is generaly though not uniformly fatal. Pneumonitis may be complicated by other conditions such as malaria, typhoid fever, pericarditis, etc. The duration of the disease is usualy from one to two weeks, in some cases however convalescence is much more protracted

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Etiology.— The causation of Pneumonia is not in all cases apparent, it unquestionably sometimes follows some exposure to cold or wet, males

are more frequently affected than females this being due in all probability to the fact that the former are more constantly exposed to the inclemency of weather than the latter. Intemperance may also be fairly regarded as a cause, many cases occurring amongst habitual drunkards. This is probably owing to over exposure during a debauch.

Pneumonia is frequently the result of Exhaustion, any cause of the lung being capable of producing it.

Burns about the trunk are often followed by this disease that the relation of cause and effect cannot be doubted, although the exact pathological connection between

the last conditions has so believe not been clearly made out. And lastly there are those cases, and they are in the majority, which may be termed idiopathic and for which no cause whatever can be assigned

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Diagnosis.— We admits the first physical sign of Pneumonia, a sign which is manifested even before the characteristic crepitating rale, is according to Waters, an increase or exaggeration of the normal vesicular respiratory murmur (Puerile respiration). This is produced according to the author just cited, by a swelling of the minute diaphragm situated at the mouth of each air-sac, at the expense

of the opening. At this stage of the disease in addition, an increase of the vocal resonance may be found over the affected part, this sign is found during the act of coughing. Possibly this may be caused by the same mechanical conditions as the one above alluded to; the air being pent up in the air-sacs and the vibrations imparted to it by the voice being thus confined, the resonance would be necessarily increased in the part. These signs are observed during the stage of active injection and destruction of the pulmonary tissue; and although they are valuable in a diagnostic point of view when met with yet it rarely happens that the disease is thus early encountered by the physician, The first stage of

sign of Pneumonia as described by most authors is the crepitating rāle. While this sign is almost pathognomonic of pneumonia it is not entirely so, it often being heard in perfectly healthy persons immediately after waking from a prolonged sleep. Again it occurs as a symptom of pulmonary œdema but this condition is not likely to be confounded with the first stage of pneumonia the constitutional symptoms being entirely different in the two cases. The mechanism of the production of the sound however is always the same the seat of the exudation being within the air-sacs the essential difference is in the character of the exudation itself. In one case it is thick and

viscid, and in the other it is serous. Slight dulness on percussion over the affected area will soon follow. As the process of consolidation advances the percussion note will become still duller, and absolute flatness will be observed when the stage of hepatization is complete. The respiratory phenomena in this stage are bronchial respiration and bronchophony. When the stage of solidification is complete the line of flatness on percussion will always be found to follow a curve corresponding with the inter-lobar fissures and not with the contour of the body, as is the case with the dullness due to pleural effusion. Increased vocal fremitus may be

elicited over the solidified area, In pleuritis the vocal fremitus is diminished. Moist or dry bronchial rales may also be heard which are especially marked if there be a concurrent bronchitis. Invasion of a second or third lobe would be denoted by increase in the area of dullness, also the manifestation of the auscultatory phenomena belonging to pulmonary consolidation. The expectorated rale however is generally absent. This may be accounted for by the limitation of the respiratory movement, augmentation of the constitutional symptoms such as sudden elevation of temperature increased by fever etc

will generally be found associated with the above signs, in this condition.

In the stage of resolution the signs indicative of solidification become modified, respiration changes from bronchial to broncho-vesicular, moist bronchial rales are heard, the percussion note becomes clearer and in some cases the crepitant rale reappears. The respiratory sounds undergo modification from day to day until only those which indicate a full return of the lung to its normal functions remain.

In the stage of purulent infiltration the effused products not undergoing absorption, dullness or flatness of the percussion note will continue, moist bronchial

rales, coarse and fine, will be heard over the the affected lobe or lobes, bronchial breathing and bronchophony will continue, If abscess occur and the patient live until it shall have discharged its contents the signs of the pulmonary cavity will be present

—o—

Prognosis.— When uncomplicated pneumonia especially if the disease be confined to one lower lobe, is good. But if it be double, or if the portion of the lung attacked be an upper lobe, it becomes more formidable, Again the constitution of the patient should be taken into account.

When other diseases exist intercurrently with or as complications of

pneumonia, or typhoid when pneumonia itself occurs intercurrently with or complicates some other affection the course of the pulmonary inflammation will be modified and its gravity enhanced in direct proportion to the gravity of such complications or intercurrent affections. When complicated with malarial poisoning or pericarditis it is very often though not uniformly fatal, typhoid when it is itself developed in the course of any of the continued fevers, exanthematic diseases or burns about the trunk, the prognosis is grave.

In consequence of the increased amount of fibrin in the blood due to the high inflammatory action fibrinous clots occasionally form in the right cavities

of the heart. This complication which is denoted by great prostration, frequency weakness and irregularity of the pulse but [illegible] is rapidly fatal.

Acute pneumonitis especially if the upper lobe be the one involved sometimes though very infrequently takes on a chronic form. In these cases caseous deposits may occur in the pulmonary parenchyma, in which event death from Phthisis will usually close the scene. In double pneumonia death may occur from apnoea but this happens very seldom and only takes place when a number of lobes are involved in very quick succession. The majority of

fatal cases of uncomplicated pneumonia terminate only when the powers of life are exhausted, death taking place by asthenia.

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Treatment:— In the treatment of Pneumonia one of two plans may be followed; either that class of remedies which are supposed to have an abortive effect upon the disease may be exhibited, or failing in the accomplishment of this end, those measures which tend to mitigate the intensity and shorten the duration of the attack should be had recourse to. It has been pointed out in the description of the morbid anatomy of the affection that an appreciable interval of time exists between the inception of

the disease and the establishment of the exudative process, This interval may last from a very few hours to a day or a day and a half, If the malady be thus early encountered by the physician the abortive plan of treatment should be tried. Among the therapeutic agents which have been used for the attainment of this end, opium and quinia will perhaps rank first.

Full doses of Opium given immediately after the initiatory chill have been believed by many acute observers to have broken up an impending pneumonia. Quinia, again, exerts a powerful abortive effect in all incipient inflammations, this is accounted for by its well known action upon protoplasm; checking

the amoebiform motion peculiar to this form of living matter and thus preventing to a great extent the migration of cells; a phenomenon essential to the inflammatory process. If Quinia be given with this view in Pneumonia, it should be exhibited before the exudative process has commenced, and in full doses frequently repeated, in order that the constitution of the patient may be brought fully and speedily under its influence.

Says Bartholow "He who hopes to check an impending inflammation by the administration of small doses of Quinia, no matter how frequently repeated, is unacquainted with the nature of the work he has undertaken, for this pur-

twenty grains should be considered a minimum dose". One other measure which was formerly very highly extolled as an active agent, but which has now fallen into deserved disrepute, is copious general blood letting. That in some rare cases marked benefit may follow this proceeding there is no doubt, but it is also true that an equal amount of good may be accomplished by pursuing a less heroic plan of treatment, without exposing the patient to any unnecessary risk. It should be the effort of the physician in this as in all other diseases to conserve the vital forces of the patient, thus enabling nature to rally more speedily from the depression incident to a depart-

from the state of health, rather than by the use of depressing measures to fritter away the strength which is so necessary to the establishment of early convalescence. Local blood-letting may sometimes be advantageously had recourse to. Wet cups over the affected part sometimes afford marked relief, cases are rare however which call for the institution of this measure. Not possessing any remedy which might be considered a specific in this disease it is necessary in prescribing to take into consideration the constitution of the patient, his surroundings, the extent of the disease and the existing complications. During that stage in which inflammatory

-action runs high it should be our effort to administer such medicines as would tend to diminish fever and relieve pain, With this object, Quinia, Morphia, Spts. Mindereri, or Sweet Spts. of Nitre may be given in their appropriate doses and if the condition of the patient admit an active cathartic will be found useful, When fever runs high and head symptoms are prominent especially if arterial tension be marked, arterial and cardiac sedatives afford great relief, such as Aconite, Veratrum Viridi and Tartar emetic, During the administration of these drugs the patient should be closely watched and as soon as the therapeutic effect aimed at has been attained

the medicine should be withdrawn altogether, or the dose greatly diminished. Calomel which was formerly used in nearly every case of Pneumonia with a view of producing rapid absorption of the effused product is now seldom or never administered, it having been proved inoperative in this respect and actually prejudicial in some cases. In those cases which are characterised by early prostration of the strength of the patient as indicated by a weak and rapid pulse an anxious expression of countenance a relaxed and clammy skin and other symptoms indicative of constitutional weakness, our main therapeutic reliance should be on the liberal use

of stimulants and every effort should be put forth to induce the patient to partake of a sufficient quantity of such articles of food as are of greatest nutritive value and are at the same time easy of assimilation, indeed the use of stimulants and nourishment should be the main reliance of the Physician in the treatment of nearly every case of Pneumonia coming under his observation, not however of course to the exclusion of other measures which might be indicated in individual cases. In the early stages mild counter-irritation is sometimes of value, Poultices of linseed meal over the affected part often afford great relief.

In some cases after exudation is complete; blisters, when they can be borne, act most beneficially, the surface irritation relieving by reflex action the pulmonary circulation, the vessels of this system are placed in a better condition for the absorption of the effused products. Sometimes after exudation is complete, the stage of resolution is very tardily declared. In such cases the painting the chest with Tincture of Iodine or the inunction of the Compound Ointment of Iodine will markedly hasten the process of absorption. Should the disease pass into the stage of purulent infiltration our energy effort should be directed to sustain the strength of the patient by stimulants and nourishment; hoping thus to tide him safely over the period of constitutional

depression which is always so marked in this condition, the short time remedies, hygienic measures and all forms of treatment such as will serve to invigorate and support the system and sustain life will be indicated.

A Thesis

on

Acute Pleurisy.

Respectfully submitted to the
examination of the Provost.
Regents and Faculty of Physic.
of the
University of Maryland.
For the degree of
Doctor of Medicine.
by
Charles Fetz. of Baltimore Md.
A. D.
1879

/

Acute Pleurisy.

Gentlemen: Before entering upon a discourse of the above lesion. I think it proper to introduce a cursory description of the pleurae in their normal state. -

The pleurae are two in number, situated within the thoracic cavity and separate from one another. Anatomically each pleura is divided into an external or parietal and an internal or visceral layer. The external layer is closely connected to the parietes of the chest by connective tissue, and extends from above the first rib to the diaphragm below upon which it is reflected. At the roots of the lungs, the external layers are turned in upon

the surface of the lungs, becoming the visceral layers. Thus the pleurae like the other serous membranes are shut sacs. They are lined by squamous epithelium, which in health is moistened by a secretion of lymph facilitating free movement of the layers upon each other during respiration. The pleurae are supplied with blood mainly from the intercostal arteries, a small amount, also, being derived from the internal mammary, phrenic, inferior thyroid, pericardial and bronchial arteries. They are freely connected with the lymphatics in their vacinity. - According to Dalton, " serous cavities are either extensive lacunae forming in some regions the origin of lymphatic vessels, or else, they

are wide but shallow expansions of the cavity of the lymphatics, situated at var-ious points in their course."

Pathological character and morbid anatomy.

Acute pleuritis, as a rule, is a unilateral affection and involves the whole pleura. The inflammatory process is first mani-fest by engorgement of the bloodvessels and an abnormally dry condition of the pleural surface. The epithelium is nearly all cast off, molecular infiltration is created and as the result of the perversion of nutrition, there follows an exudation of fibrin and liquor sanguinis into the pleural cavity.

The effusion varies in appearance in proportion to the amount of fibrin present (one or the other may predominate)

Sometimes the amount of fibrin is very great, existing in successive layers upon the pleural walls, or floating loosely in the serum. Dr. F. Lewis Smith, "recalls a case where the right lung was cornified and covered with a dense fibrinous layer three quarters of an inch thick in places. with but a scanty exudation of serum."

The amount of effusion is very variable, it may not exceed a few ounces, again it may fill the entire pleural cavity. As the effusion exudes into the air the lung substance is compressed in accordance, sometimes to the extent of complete solidification when it is said to be cornified. If the lung is free from old adhesions the fluid can be made to alter its level by changing the position

of the body. In favorable cases the serum is absorbed, at first very rapidly, but slower as the density of the fluid increases. The fibrin slowly undergoes fatty degeneration and is in turn absorbed. As the effusion recedes, the compressed lung gradually undergoes expansion until it fills the entire cavity. Then the parietal and visceral layers coming together with their surfaces covered with young capillary granulations unite by permanent adhesion and obliterate the sac.

Etiology. The common exciting cause of acute pleuritis is exposure to the prolonged influences of cold and dampness. Probably in most instances, however, there exists some morbid condition of the blood which favors the develop-

-ment of acute inflammations. Persons are predisposed who are the subjects of Brights disease, acute articular rheumatism &c. In children it often occurs as a sequel to measles, scarlatina, or tubercular deposit, though as a primary affection pleurisy is uncommon in nursing infants. Sometimes pleuritis is due to traumatic causes, as, the receipt of a wound to the chest, fracture of a rib &c.

Symptoms. The onset of acute pleuritis is sudden. There may be a well marked chill, followed by febrile movement, though the temperature never rises, as high as, in pneumonia. 103° is its extreme. The appetite is lost, there is great thirst, more or less headache

and muscular debility. "Pleuritis with profuse sero-fibrinous exudation is accompanied by the most constitutional disturbance." Niemeyer. —
In some cases no pain is experienced, though if the fibrinous element be great it is usually intense. According to Grisolle, pain is wanting in forty per cent of the cases of acute pleurisy. When present it is experienced especially on full inspiration, its intensity may be such that full inspirations are restrained. The cause is perfectly apparent. At this period of the inflammatory process the pleural walls are engorged with blood and rendered less elastic by the deposit of lymph: each respiratory act puts this burdened memb

-rone upon the stretch and causes the pain. There generally coexists a sup-pressed cough with a scanty frothy expectoration. The respirations are increased in frequency, not from dys-pnoea, but on account of the severity of the pain attending the normal full expansion of the chest. The pac-ient experiences more comfort by taking short inspirations. In marked cases the expiratory moan accompanies the respiratory act. - These constitute the usual variety and train of symptoms at the beginning, but if the disease goes on to the stage of effusion they are greatly modified. Pain is then espec-ially lessened on account of the dim-inished friction of the pleural surfaces.

which are now widely separated by the effusion. The febrile symptoms abate, but do not cease, and the general constitutional disturbances are less marked. The number of respiratory acts are still frequent, but now from a different cause. In proportion to the extent of the effusion is the lung condensed and deprived of its function. Oxygen, however, must be supplied and the system obtains it by throwing the extra labor upon the sound lung. The patient may complain of dyspnoea and in severer cases is unable to lie down (orthopnoea.) If the horizontal position be assumed it is almost invariably upon the affected side, so that the sound side may have full room

to explorers. In favorable cases improvement begins about the commencement of the second week and absorption proceeds the distressing symptoms which previously existed disappear. The patient is now able to perform light duties, or indulge in outdoor exercise. —

Diagnosis, The diagnosis of pleurisy at the first onset of the disease merely by the symptoms which present themselves involves some difficulty and is uncertain. It is most likely to be confounded with intercostal neuralgia, pleurodynia or pneumonia.

From intercostal neuralgia it may be distinguished by the location of the pain. Eg. Behind in the region

of the dorsal vertebrae, laterally in the intercostal depressions and near the sternum in front. These three painful points are characteristic of intercostal neuralgia. In pleurodynia the pain is equally as intense if not more so on muscular movements of the body, than with the respiratory act. Besides there is not the constitutional disturbance as in pleuritis. Pneumonia presents the greatest difficulty, but here the pain is never so severe unless complicated with pleurisy which the constitutional disturbance exceed those of pleuritis. -

To be accurate we must have recourse to physical exploration. Probably from no other disease can we elicit more convincing signs for truthful diagnosis than those

presented by pleuritic. Having denuded the paciente chest, inspection will reveal restrained respiratory movements on the affected side, perhaps absence. If effusion has taken place and that is great in amount, there will be noticed total obliteration or bulging of the intercostal spaces. By percussing over the affected side, the ear is at once struck with the marked dullness existing, as high as, the effusion has advanced. Should there be any reason to doubt the cause of dullness being due to fluid; let the pacient assume the horizontal position, when if it be fluid you will have pulmonary resonance where before there was dullness. The lung having risen in front and the heavy fluid gravitated to the back.

This rule is to be excepted, if the lung has been bound down by previous adhesions. - By auscultating the affected side, there may be detected notable weakness of the respiratory murmur - previous to the state of effusion. This, however is not a convincing sign, as the same is frequently noticed in other thoracic troubles. Later we may detect a friction sound, which is pathognomonic of pleurisy. Usually after the first day effusion is present, rendering the diagnosis positive. Auscultation, now reveals total absence of the respiratory murmur below the level of the fluid: above the fluid the respiratory murmur is feeble. If the effusion is not sufficient to cause solidification the vocal resonance is increased, but if

The lung tissue is compressed by a large effusion, bronchial respiration of a distant, suppressed character is heard in the scapular regions. - Sometimes bronchophony, or its modification ægophony is heard. Auscultation over the normal lung detects increased vesicular murmur (puerile respiration.) due to its increased function. By percussion we detect increased vocal fremitus above the level of the effusion. - absence below. -

By mensuration, if the effusion is large there will be detected increased extension of the affected side. When the effusion is absorbed, the lungs surfaces coming together, cause a return of the friction murmur. -

Prognosis. If the patient has had

previous good health, and equally important, if the patient is in comfortable circumstances: the prospects of a favorable termination are very good. Those who from necessity are deprived of the comforts of life, subjected to exposure, &c, are very likely to have the disease assume a chronic form. Sometimes with pleurisy, there is developed pericarditis. This is a dangerous complication and is apt to be overlooked - until the autopsy.

Another source of danger is the rapid accumulation of fluid causing extreme dyspnoea, and death from apnoea. —

Treatment. Two essential points to be noticed in the treatment of acute pleurisy are: first, what is the stage of the disease; second, what is the condition of the

pacient? Should the case come under the physicians care early, the first treatment which naturally suggests its self, is, to modify the intensity of the inflammation and relieve pain. (if it exist.) So far well and good — but a difficulty now arises which requires much judgement to settle. Namely, which of the various methods of treatment at our disposal will best accomplish the desired effect? Invariably we hear the time worn phrase, "If the pacient is plethoric and of vigorous constitution bloodletting will be of great value." Should, however, the inquiry be made among our modern physicians. — how have you treated your cases of pleurisy? I may safely assert that none will have had recourse to

venesection. While I do not deny that blood-letting is a means of reducing plethora, and possibly aborting certain forms of inflammatory action if resorted to early; yet it requires caution and in pleurisy it is questionable if it would have any advantage over other therapeutical measures. — Quinia properly holds an important place in the treatment of acute pleurisies. There has been accumulated sufficient clinical experience to establish the fact, that quinia will arrest the onset of the inflammatory process. It checks the amoeboid movement of the white blood corpuscles, lowers temperature by lessening the oxidation of tissue and in great doses remains in the system acting upon respiratory

principles. According to Dr. Bartholow, if "administered at the critical moment, a commencing fibrinous pneumonia, a pleurisy, an endocarditis, may be suppressed by a full dose. (15-20 gcs.)" If the case be of a sthenic type with excessive force and frequency of the hearts action. Aconite may be judiciously used. Like quinia, it has great controls over inflammatory action. Being a true sedative it reduces undue force of the circulation, and lowers high temperature to a wonderful degree. Should the hearts action be rapid, but wanting in force digitalis had better be used in place of aconite. Opium is an agent of the greatest value in pleurisy (as in all other serous inflammations.) It checks

the advance of the inflammatory process by lessening the oxidation of tissue.— It quiets irritability of the nervous system, relieves pain and induces a calm sleep. These few medicines, which have been considered are sufficient to fulfill the most important indications of a commencing pleuritis. If we meet the case in the second stage a different course is to be pursued, our efforts now being directed to the restraint of effusion or to promote its absorption if already formed. Such agents as increase the activity of the excretory organs of the body, by their revulsive influence will chiefly accomplish this object. The various classes of evacuants have been employed, as the saline and hydragogue cathartics,

Purgatives act well in most cases, but must not be carried to the extent of exhausting the system. Diaphoretics have very beneficial in some instances. of this class. Jaborandi though as yet not sufficiently tried, from its physiological action promises to hold an important place. Diuretics, also, are used extensively and with probable good effect. Alteratives and tonics are sometimes required when absorption is slowly progressing. If there the iodide of potash and the syrup of the iodide of iron and manganese are the best. Externally the blister may be applied, and it is remarkable with what rapidity a stubborn effusion will frequently disappear after this has been.—

The diet should consist of easily digest-
-able food. Milk being the chief article
and given in large quantities.
Farinaceous substances and animal
broths may also be given if well borne.
The patient should be kept in a com-
-fortable room, never of a higher temp-
-erature than 65° F. and well supplied
with fresh air and sunshine. —
Finally, is the operation of thoracen-
-tesis thoracis ever required in acute
pleurisy? Yes. when there has been
an unusually large and rapid effus-
-ion causing extreme dyspnoea. Thoracen-
-tesis is the most certain means of relief.
Professor Franke Donaldson, (in his
report of thirty-seven operations of thora-
-centesis by pneumatic aspiration, page 6.) says

"In acute cases, if the fluid rises rapid-
-ly above the angle of the scapula, or if
there is any moving of the heart from its
normal position, or any distortion of the
large bloodvessels, the operation should
be promptly performed. If there is any
oppression of the breathing the demand
for the operation is imperative." The dan-
-gers attending the operation are trivial by the
more modern instrument Dieulafoy's aspirator.
The advantages of this instrument and opera-
tion are: 1st That, no air can enter the chest,
the puncture being so small that the elas-
-ticity of the tissues obliterate it the moment
the needle is withdrawn — hence no sceptic
results. 2nd That, the pleural walls are put in
the best condition for union, and the prospects
of a favorable termination greatly increased.

Respectfully dedicated to-

Prof L McL. Tiffany.

"Medicine, as a science and an art."

By

Conally L. Dunn.

Univ. of Md.
1878-9

# Hygiene

By Thomas. Waters, Linthicum.

Candidate for the Degree of
Doctor of Medicine.

Before the Faculty of the
University of Maryland.

Class 1877-78-79.

February 20th 1879.

To a Student of Medicine, Candidate for the Degree of Doctor of Medicine, a thing being, in part, necessary for the successful attainment of such honor: I have chosen, and I think need not apologize for my subject, Hygiene, since a knowledge of its applications and a proper appreciation of its merits is a very necessary adjunct to a medical education. In order to be prepared for the proper application of hygienic rules, we must have an idea of health, and in what consists its integrity. I conceive of health as dependent upon the normal performance of all of the functions of the body; viz. of nerve force and blood supply as dependent each upon the other, and of gland secretion and excretion with the phenomena of osmosis.

It is evident, that if either or several of these functions be deranged, we have not health "in integrum."

I propose to notice a few very powerful and fatal obstacles to health and their proper hygienic antidotes. I recognize the air we breathe as the most powerful agent for spreading disease, acting simply as a carrier, not as an originator of its germs; whence it gets these germs is often a mystery, but we have too many pregnant sources, painfully evident, to mistake their influences.

Decaying matters, animal and vegetable, are fertile sources of disease, of which we have very many instances. If I base my observations in a city, I find the

Streets teeming with noxious matters, alleys and gutters are sorely neglected, while sinks and cesspools exist as places of convenience, and in which the germ of many a disease is generated. These sinks are the receptacles for human excretions, which from necessity contain disease germs, since these germs are prone to pass by the natural channels, when they exist in the human body, being thrown into sinks without being destroyed, they naturally accumulate and originate dire plagues for the future. We may receive these germs into our organisms, in atleast two ways: viz. by wind and water. The breezes, which should bring to us the life giving Oxygen, come laden

with noxious exhalations from these places of death, formed and fashioned by our own hands. Again our water supplies are notably too near these hotbeds pregnant with diseases and what is more common than to have our drinking water contaminated by actual contact, to say nothing of the many indirect ways of communication with these sources of evil. A thorough cleansing and a proper disinfection of these sinks at short intervals would remedy the evil and give us health at a small cost. But since a momentary contact alone, is sufficient to pollute the purest spirit, I would suggest that each Stool, suspected to contain

disease germs, be consigned to the flames as the surest and most effectual means for their destruction. Again the accumulations of filth of every description, animal and vegitable, are sources of disease. this is proven by the fact that when these accumulations occur diseases are more frequent and more fatal. Where do we find the fearful ravages of Variola and such kindred diseases making such sad havoc as along the neglected alleys, when the conditions are wholly insanitary? Few large Cities that have not recorded in their history fearful ravages of diseases, due most probably to anti-hygienic conditions, and which conditions on being removed have been followed by most pleasing results.

I can cite New Orleans, one of our cities which previous to the late civil war had been ravaged by that deadly pestilence Yellow Fever, for a number of years, but being reunited by a certain officer during that time, who having a strict appreciation of the laws of health, caused a thorough cleansing of every portion of the city, and a proper disinfection of all places of unhealthy character, the result was marvelous, a period of almost complete exemption was gained, for several years Yellow Fever was almost unknown in New Orleans; but since that time the city has relapsed into an insanitary condition, and the disease has again obtained a forthold there.

able in the extreme, which medicine without its complement, Hygiene, can never eradicate. To day the City of Baltimore, enlightened as she is, is in an insanitary condition, the streets are swept it is true, but the gutters Even with noxious matters, sinks and cesspools are left to themselves in a great many instances, while garbage pipes are notably without bottoms; but these are not all the sources of pollution to the atmosphere, every slaughter house where decaying animal matters are found, the numerous factories dotting its outskirts and filling its interior, coal yards with their attendant quota of very fine particles each engine that sends

to and from its depots filling the air with inspirable gases, all at their parts will in dealing death to her inhabitants: it is true that some of these are necessary evils. But it is none the less true that a great many of them could be remedied in a great measure by the proper institution of a system of hygiene laws: that these are the sources of contamination, we have only to contrast the air of the cities with that of the country where they do not exist, and we are told that the proportion of oxygen is very much lessened in the city air, while bills of mortalities, if we are ambitious, will make it doubly certain.

Sanitary rules can prevail with more certainty against a disease when endemic, than against epidemic diseases, from the fact that in the former the cause is a local one, and its locality being found, it can be destroyed by proper measures. I have a case in point. When previous to the cutting down of a large body of woods, Malarial fevers were scarcely known at a certain farm house - after which they became very prevalent, owing as it was supposed to noxious vapors from a large marsh, which the woods had formerly protected, this marsh being recognized as the source of evil was soon drained, and we were relieved from the fevers almost directly.

as a proof that this marsh was a source of contamination, I offer, that the men engaged in its drainage were affected with Intermittent Fever nearly the whole time of their employment. Again and again have I known a neglected hog-pen or some such place to create no little amount of mischief, which, on its removal and the proper disinfection of the place, was totally abated: often I have known decaying vegetables, in a cellar, to affect a whole household, and health could not be regained until their removal. I could multiply instances but it is useless, That, hygienic measures can prevail with less effect against Epidemic diseases; is because their "mate-

-ries morbi" is wafted from parts, it may be remote, but certainly as yet unknown; hence we can not prevail against the hidden foe: but certainly sanitary measures have done too much to mitigate their virulence, to allow us to relax our efforts in their furtherance. Again the subject of ventilation is a most important one in a sanitary point of view, and one, which perhaps concerns us, as a profession, more in the individual management of disease than any other. Pure air is acknowledged by all to be essential for perfect health, yet how often do we find its advocates living in an atmosphere loaded with impurities. The want of proper ventilation is the source

of many a headache wearisome, and premature grave. I have seen, in this city, cellars, dug deep, by men, with mercenary motives, in which thirteen hours are compelled to work through a great part of the day; where the light of day scarcely finds entrance, and when the genial rays from "nature's furnace" play no part whatever in the purification of its murky atmosphere; for men are compelled to work day by day, breathing over and over again the air, already vitiated, from their own lungs; no current can here find access to disturb the gloom and pollution of this death bearing place; no friendly plants here bud and bloom to give them oxygen

and absorb their carbonic acids.
Since pure air is necessary for the perfect oxygenation of the blood, and pure blood being necessary for the proper nourishment of the tissues, and consequently for health should we not gain this desirable boon at any cost? But can we procure it while we mix with some source of pollution at nearly every turn, and are not even spared in our homes, in our public, nor in our private halls? If a man smokes to excess it is acknowledged by all to be detrimental to his health; reasoning by analogy, I ask, if a man be smoked to excess by superior numbers, if his health is not equally prejudiced?

Can respiratory tracts, weakened by constant inhalations from such foul sources, perform their natural functions without embarrassment? certainly no one can say yes. Again, can we have health, with so important a function, as respiration unlinked with? this query must equally with the former be negatived. Sun light is of most potent influence for good in a hygienic point of view. many of us must have noticed even plants, deprived of its influence, how they fade and become pimy and weak. often I have seen this state of affairs corrected by its timely admission. Are not its rays equally necessary

for our healths and comfort; certainly they are, but there is a notion prevailing, which amounts almost to disrespect against its admission even into the apartments of our dwelling houses. Often have I seen the pallid infants of some stately mansion emerge from their secluded abodes, even closely veiled from nature's face, lest some stray beam should ~~tinge their~~ pallor, for certainly it is not beauty. Each window of these edifications is barricaded against the sun's rays, in preference to the fine of tapestry or some fine carpet, at the fearful cost of health and comfort. This is a most pernicious practice, for the rays of the sun should be

admitted and should penetrate into every apartment of a dwelling daily, if practicable, and this is scarcely a day so inclement, but that each room and hall could be thoroughly lighted and ventilated.

Physiologists tell us, that each individual requires about 350 cu. ft. of fresh air during 24 hours. and this must be a moving current lest it become foul: reckoning from this fact the air in most of our sleeping apartments would become impure in a very short time. even if they had only one occupant each; but how often do we see even in smaller apartments, many persons crowded together with no ventilation except the crevices in

the walls: persons inhabiting such places are notably susceptible to diseases, they are the food for the pestilences, which at times make such ravages amongst us. The proper temperature along with ventilation is also too often neglected, rarely do we find, even a public building with a properly regulated temperature; more often we find it too high than too low. we are assured by recent teachings that above 65° to 67° F. is not an healthy atmosphere for constant use. We can easily regulate the temperature even of a sickroom and procure ventilation at the same time, without the much dreaded draughts, by having apertures at the top of our rooms, since heated air

always rises and will then find a ready exit. The [illegible] too is a very [illegible] from which happily, the poor are exempted by their very poverty but the rich, from their peculiar position, are compelled to bear the curse of fashion, and many fill untimely graves from obedience to its haughty mandates; too often we see the form of some loved one laid low by the ruthless hand of some fell disease, superinduced, it may be, by a single night's exposure, in dress scanty, and scarcely becoming true woman; we can warn, but may expect but little success in this quarter of our moral duty. Hygienic rules as applied

to the management of children should engage the earnest attention of every practitioner of medicine, since by their proper application such good results are obtained, and medicines, which are to these little sufferers as "thorns in the flesh," and justly too, would become rather accidental necessities than a part of their every day being. In the first place residence in unhealthy places, such as dark and damp alleys, where the sun's rays cannot penetrate; crowded together in small hovels, where the very atmosphere is polluted by the exhalations from so many beings; they readily fall a prey to those diseases, as the eruptive fevers, which here find a favorable

soil for their production. Again, the susceptibility of children to the impressions of cold, bring the subject of their dress to our notice; it is said, that in the City of London, a fall of temperature from 45° to 4° 5° below Zero causes an increased death rate of children from three to five hundred. This fact alone should warn us to look after their dress, and to protect them from the fierce blasts of winter with assiduous care, for those Thoracic diseases as pneumonia, bronchitis, and croup are largely due to exposure to cold without proper clothing, it is truly said, that low neck and short sleeves have filled many a chest with cold, many a heart with sorrow, and many a grave with an untimely occupant.

Having taken, necessarily, a cursory view of my subject, but having established, as I think, each point that I have made, I submit it, my fitness, and my present happiness and future course to the favorable consideration of the honorable Faculty of the University of Maryland.

A Thesis

on

Sporadic Dysentery.

By

John Irwin Warder

of West Virginia.

1878–79.

# Sporadic Dysentery

The term dysentery is used to designate inflammation of the large intestine, attended with mucous and bloody dijections. As etymology expressing intestinal difficulty, it is not easy to substitute a term conformable to the nomenclature of inflammatory affections, since their is no anatomical name for the large intestine as a whole. The term colonitis, or colitis is sometimes used in the place of dysentery, this implies that the inflammation is limited to the colon, the rectum is generally, if not always involved, in some cases of dysentery, the affection may not

extend above the rectum. Dysentery does not express anything erroneous or doubtful in regard to the pathological character of the disease. Sporadic Dysentery is presented in practice as an acute and subacute affection, the local and general symptoms denote more or less gravity of disease, compelling the patient to keep the bed, in some cases it is an extremely mild and trivial affection. The Sporadic form presents every gradation as regards severity, there are few diseases which offer a wider contrast than the mildest cases of Sporadic, and the gravest cases of Epidemic Dysentery.

Anatomical Characters.

In subacute or mild cases the inflammation has but little intensity, it may be limited in extent, confined perhaps to the rectum. In these cases the disease involves no danger, therefore the opportunity of inspecting the parts after death are not offered. In acute or severe cases, the inflammation is more intense, more extensive, involving the rectum, and the greater part or whole of the colon. These cases are liable to end fatally, the affected membrane, on examination after death is found to be reddened from active congestion, swollen, softened, puffy, in different cases, ecchymosis, excoriations from desqu-

amation of the epithelium, abrasion and ulcerations in greater or less number, the latter being sometimes smaller and sometimes of considerable size. Ulcers may or may not be seated in the intestinal glands, and follicles. The redness and swelling is not always uniform over the intestine affected, they are limited to or marked in certain parts, especially the projecting folds of the membrane sometimes small vessicles are observed. The swelling of the membrane is due in part to submucus infiltration, the latter is sometimes so great, at certain points as to give rise to protuberances resembling warts, growths or fungoid excrescences, they may

be more or less numerous, sometimes coalescing, giving the surface a mammelonated aspect. Patches of exuded fibrin are frequently adherent to the inflamed membrane, having a greenish or brownish color. The intestine contains more or less morbid matter corresponding to the dejections during life consisting of mucus, pus, fibrinous flakes, desquamated epithelium, and sero-sanguinolent liquid. The intestine may present a dark and almost black appearances from congestion. As a rule, the appearances denote progressively a greater amount of disease in passing from the upper part of the large intestine downwards to the anus, the greatest

amount being at the rectum, and
Sigmoid flexure. The morbid appe=
=earances in dysentery denote ordinary
inflammation varying in different
cases in intensity. The mesenteric gla=
=nds are sometimes found to be con=
=siderably enlarged, and in some inst=
=ances to contain pus. The cicatrizat=
=ion of ulcers in some cases leads
to stricture of the intestine (Flint)

## Clinical History.

Dysentery is frequently preceded
by ordinary diarrhoea, more or less
frequently defecations of a feculent
character. Of thirty three recorded cases
which I have analyzed with reference

to this point these defections precede the characteristic dysentery evacuations in thirty. (Flint) There are generally colic pains, with loss of appetite, with general feelings of languor. It is very seldom if ever that dysentery is ushered in by a chill or even by chilly sensations. The development of this disease is denoted by evacuat=
=ions consisting of mucus with which more or less blood is usually commin=
=gled. As a general rule the quantity passed at each defecation is generally small, the act is frequently repeated, sometimes only a few minutes between the defecations. Sometimes the quantity of mucus expelled is abundant, forming a jelly like mass

by the unprofessional generally called slime. Rarely in sporadic but not infrequently in epidemic dysentery the evacuations contain fibrinous laminae or flakes in greater or less quantity. The greater number of the evacuations are exclusively dysenteric, consisting of mucus, epithelium, lymph, and blood, fecal matter is sometimes discharged with the evacuations, and generally presents a greenish color. If these dejections be filtered they will be found to contain a large quantity of albumen solidifying by adding nitric acid. Hardened round lumps of feces are sometimes expelled, and are called scybala. The morbid matter evacuated with the absence of

fecal matter, constitutes, measurably,
a criterion of the extent of intestinal
surface afflicted. The fæces emits
a putrid or cadaveric fetor. Inflamma=
=tion of the rectum causes a sensation
as if this portion of the bowel was
filled, causing a frequent desire to def=
=ecate, causing as much straining as the
soreness of the parts will allow. Sometim=
=es the straining efforts cause prolapsus
of the intestine. The evacuations are
frequently preceded by griping or
colic pains, which are called tormina.
The tormina and tenesmus are not
always in proportion to the severity
of the disease, and are sometimes wanting
in fatal cases, and sometimes prominent
in the mildest cases. They are however

the chief source of suffering. Tenderness on pressure more or less marked over the descending colon, occasionally over the whole of the large intestine, it is seldom great, not infrequently wanting, tympanitic dystension is rarely present, the abdomen is usually depressed. Retention of urine is an occasional symptom, in the female leucorrhea may be produced. The pulse in the majority of cases is but little, and sometimes not at all accelerated. (Flint) Sometimes high febril movement exists in robust persons. inflammation more intense, and diffused than usual sometimes Exists. Great rapidity of the pulse always denotes danger, but in some fatal cases the pulse

is not much accelerated. The skin is cool or moderately hot, although sometimes high febril movement, with much heat of surface is sometimes observed. The tongue may be frosted, or coated, and sometimes presents a natural appearance. During the course of the disease, the appetite is diminished or lost. Thirst is usually present, sometimes urgent. Vomiting sometimes occurs, and may be prominent as a symptom, the matter vomited being of a greenish color. As a rule the intellect is not affected, delerium occuring frequently in cases which end in recovery, and sometimes in cases which end fatally toward the close of life. Loss of strength varies greatly in different

cases depending on the severity, and extent of the affection, depending, also on the condition of the patient when attacked. The duration of disease varies from four to twenty one days. These figures represent the minimum, and maximum duration in thirty recorded cases according to Dr Flint.

## Pathological Character.

The present knowledge of the pathology of sporadic dysentery embracing only the intestinal affection, local, and general phenomena make up the clinical history being symptomatic of this affection. The disease is a spontaneous inflammation

of the large intestine, of a prior internal morbid condition of which we have at present no knowledge. The question arises in this connection is there more than one species of sporadic dysentery writers describe different formes or kinds of the disease, they are distinguish=
=ed as typhus, bilious, intermittant, and remittant, rheumatic, febrile, and non-febrile. These terms denote variations in the phenomena of the disease or the coexistance of other dis=
=eases. Dysentery may occur in continued and periodical fevers. Rheumatism and dysentery are sometimes assoc=
=iated. These combinations are important in their practical relations, but it does not follow that the disease

under these circumstances is specif=
=ically different from its ordinary
form. (Flint) Febrile movement,
supposed disorder of liver, etc, do not
affect the character of the disease.
Paralysis affecting certain muscles,
especially the muscles of the lower
limbs (paraplegia) has been obser=
=ved in some cases to accompany or
follow dysentery. The affections
are so rarely connected that the most
rational conclusion is their association
is a mere coincidence. At all events, par=
=alysis, either as a complication, or sequel,
does not occur often enough to show
any intrinsic tendency thereto in
dysentery.

Causation.

No age is exempt from this disease, but in the majority of cases the patients are under thirty five years of age, this was true of 30 out of 44 cases analyzed with reference to this point. (Flint) Males are oftener attacked than females, although there is not a sufficient difference to show a marked rule with regard to sex. The climate has great influence over the disease. The disease is more frequent in sporadic as well as in the epidemic form in tropical than in cold, and temperate climates. The cause has a striking relation to season. The disease is more apt to be met with from July to November, although it may be met with at

any time during the summer months. Sometimes the constitution and previous health are good. But as a general rule there is some disorder of the system. Some writers have stated that the disease may be caused by obvious causes, such as atmospherical changes, excesses in eating, and drinking. Indulgences in acid, unripe fruit, crud vegetables, etc; But in the majority of cases it is not easy to trace its origen to these causes or to any obvious cause. (Flint). It is probable that there is a special cause for sporadic as well as epidemic dysentery. There is no grounds for considering sporadic dysentery as contageous.

Diagnosis.

It is not difficult to diagnose a case of dysentery. It must be discriminated from bloody evacuations, and irritation of the rectum incidental to hemorrhoids, of intestinal hemorrhage or melaena or from pus from an abscess opening into the intestine. The points of contrast with dysentery which these cases offer are sufficiently apparent. (Flint) Or an examination of the stools, combined with the sensations of the patient, and the general symptoms, ought to leave no doubt as regards the case. (Pelouze)

## Prognosis.

Sporadic dysentery, in temperate climates usually tends to recovery. It is

a distressing disease, although it is attended with very little danger of life. It may end fatally by an unusual intensity of the disease, or of an inability of the system to resist the disease, from feebleness of the constitution, or to some coexisting affection. In trefical climates the prognosis is undoubtedly less favorable. As a general rule in temperate climates, the disease is almost always complete, and very seldome terminates in chronic dysentery. In trefical climates abscess of the liver is not an infrequent sequel. It very seldom if ever follows in temperate climates. It is attributed to the absorption of septic matter from the intestinal

canal, or from thrombi formed in the veins of the intestine. Relapse does not often take place. Signs of collapse or adynamia are of course very unfavorable, and among specially bad signs are mentioned gangrenous stools, severe hemorrhage, subsidence of the pain while the other symptoms are becoming worse, and suppression of urine. An early return of the evacuations to their normal state are highly favorable. (Roberts)

## Treatment.

In a majority of cases, sporadic dysentery would doubtless end in recovery without medical treatment. Although

the disease may be arrested, its duration frequently abridged, and distressing symptoms greatly relieved by judicious therapeutical measures. The fecal contents of the large intestine should be effectually removed as soon as possible, in order to prevent their continued passage over the inflamed surface to secure as far as possible the important end in the treatment of all inflammation viz, quietude of inflamed part. Nature endeavors to relieve the bowels of their contents by diarrhoea which precedes dysenteric evacuations. The first point in the treatment is to ascertain whether the bowels have been freely moved. Ascertain the size and character of the stools, and examine the

abdomen by palpation. It is advisable to render the efforts of nature more complete by giveing an effective purgative, castor oil stands in high repute as an appropriate remedy. From the disgust which many patients have for this remedy, saline cathartics are to be preferred, such as sulphate of magnesia or soda, the rochell salts, or the citrate of magnesia may be employed. They should be given in large doses to produce profusely abundant dejections, they are then to be discontinued. Sometimes after useing the cathartic the dysenteric evacuations do not return recovery at once ensues. This effect does not occur only in a few cases where the inflammation is not

intense, and limited to the lower part of intestine. This treatment may be followed only where it is contra indicated by great feebleness of the patient. Roberts reccommends a little castor oil with laudanum, as benefi-cial at first. The remedy, however in this disease, and one which seems to have almost a specific action, is ipecacuanha in full doses. (Roberts) Dr. Maclean reccommends the following plan of administration, to give grs. 25 to 30 of the powder in a small quantity of fluid with a little syrup of orange peel; after which the patient must keep per-fectly quiet, and take no fluid for at least three hours, if thirsty

being allowed to such a little ice occasionally. It is well to administer 10 or 12 grs. at bedtime for a night or two after the stools appear healthy. Some authors reccommend it to be given in smaller doses, while others reccommend it to be given in doses from ½ to 1 ℈ every four or five hours. I think such large doses are liable to produce nausea, and much depression. Local applications over the abdomen are useful, warm poultices, fomentations, Sprinkled with turpentine, laudanum or chloroform, and sinapisms (rubefacients) After purgation opium in some form is the remedy to be most relied upon. It will often mitigate the severity of the disease, and afford

marked relief. It is not always retained when administered by the rectum, it must then be administered per orem. It may be given in full doses every four, six or eight hours, or it may be given in small doses repeated at shorter intervals. In the course of two or three days if the disease continues, the saline cathartics may be resorted to, if not contra indicated by feebleness of the patient, afterwards resuming the use of opium. The subnitrate or subcarbonate of bismuth in scruple or half drachm doses, the acetate of lead, the sulphate of copper, gallic acid, the various vegetable astringents, such as catechu, kino, catechu haematoxylon etc are useful as adju-

=rants. (Flint) These remedies are to be relied upon, when opium will not agree with the patient, codeia sometimes answeres as a substitute for opium or morphia. Dr Flint does not speak in as high terms of ipecacuanha, and says he has not found as good results from its use as Drs. Maclean, and Roberts, Although in a small proportion of cases, the disease was either arrested or favorably modified by its use. Calomel has been given in large quantities, or in doses of 1 to 2 grs with opium every three or four hours, although this treatment had better be avoided, as calomel has generally fallen out of use in this coun=
=try (Roberts) In the early part of the disease, the diet should be of the blan=

dest articles of food. It is the object throughout the disease to keep the patient on a diet that will leave little residuary matter after digestion to pass into the large intestine, that is a diet as purely nutritious as possible. For the first few days, it is important to provide for proper support of the system by nutritive supplies, milk and animal broths are best suited. If symptoms denote failure of the vital powers, concentrated nourishment with the free use of alcoholic stimulants are to be given freely, as in other diseases which destroy life by asthenia. Tonic remedies are useful during convalescence. Patients should be instructed

to refrain as much as possible from defecation, and straining efforts. They will try to do so as general rule if you will explain to them that the fullness of the rectum is delusive, caused by the inflamed condition of the membrane. Cold afflications to the anus sometimes relieves the tenesmus. Ice may be wrapped in cloth, and applied to these parts occasionally. Enemas of cold water are often grateful. Relief is sometimes afforded by injecting astringent liquids, nitrate of silver, a solution of tannin, acetate of lead, or the sulphate of zinc may thus be used. Dr. Gairdner reccommends highly large emmeliant

injections each containing from five to ten drops of creasote. L. R. Thomas & F. Cook has found that notable relief of the tenesmus is afforded by the introduction within the rectum of the vapor of chloroform. It is introduced by pouring a little chloroform (about 20 drops) on a piece of sponge, placed in a common syringe, passing the tube into the rectum, keeping it there until enough of the vapor has been introduced to afford relief, the vaporization is rendered more rapid by warming the syringe. Care is to be taken that the chloroform does not come in contact with the anus. Fomentations and mild revulsive applications

over the abdomen are useful as palliatives in proportion to the amount of tormina and abdominal tenderness. In the worst form you may use a large injection of warm water with the addition of a few drops of Glycerine, Turpentine or Creasote. for the purpose of emptying out the bowel. Always advise the patient to wear a flannel band around the abdomen for Hygienic and Medicinal good.

Respectfully Submitted by
John Irwin Wander.

Thesis

on

"Anaesthesia in Labor"

by

S. Kennedy Wilson.

Submitted to the
Medical Faculty
of the
University of Maryland.

Feb. 12th, 1879.

# Anaesthesia in Labor

Many are the dangers human flesh is heir to but few eventful periods present themselves to the female sex of a more trying character both to body and mind and arousing more anxiety on the part of both the woman and her friends, than the period of confinement.

Parturition is looked upon by the female as being the critical hour of life, from the fact that the common and universally prevailing opinion is, that

much danger to the life of the individual is associated with this act. If this be so, then the aid of a professional man may be of very great value.

Certainly a woman in labor is exposed to conditions complicating very much the existing one, and also great pain and suffering, the former of which may be voided off by the intervention of an Obstetrician and the latter be much alleviated by the employment of some of the powerful palliatives of which Chloroform and Ether have

proven to be of the greatest value.

It has been a matter of much notice to the Profession in general for some years past as to whether "Anaesthetics" should at all be used "in Labor". On this subject much controversy has existed between some of the ablest medical men of this and other countries, some contending that such means should be adopted, while others take as strong grounds in opposing such practice.

Dr. Meigs of Philadelphia asserts that it is unnecessary and uncalled for

as there are on an average fifty pains, each lasting thirty seconds, and diffused through four hours the median time of Labor, and also remarks that a state of profound drunkenness is produced Churchill says, as pain is a portion of the original sentence passed upon women, we are guilty of a sort of impiety in attempting to get rid of it. These may influence some as to the non-use of drugs for Anaesthetic purposes but to me are insufficient to successfully combat with

the enormous relief experienced by the sufferer.

Others think it is incurring a needless risk and involving unnecessary danger, while on the other hand in favor of its use, there are numerous advocates and far exceeding their opponents in number.

Were it not for Anaesthesia one might readily imagine the amount of suffering one would or liable to in the the amputation of a leg or the cutting off of an arm but by the use of Chloroform or Ether, the

patient is put to sleep, the operation done and when he awakes he is unconscious even of what has even done. Of such is the relief afforded by the use of "Anaesthetics" in surgical cases, why not use them in Obstetrical practice?

To Professor Simpson we are much indebted for introducing an "Anaesthetic" into Midwifery, first in 1847, as a "means of assuaging the pains in childbirth. He first used Ether and having such marked results in its behalf, contin-

ned its use for some months when he substituted Chloroform.

As to the advantages derived from their use, are first and the more important, that we may annihilate the pain so excruciating, and this is quite a sufficient reason for its employment, but another and very just reason why we should use is is to prevent the attending anxiety and avert the tortuous condition of the sufferers mind, which in itself alone is often so detrimental to the woman during such events

As we have seen some of the advantages to be derived from the use of Anaesthetics, we may inquire into their action upon Uterine Contraction. Some think Chloroform and Ether stop or greatly retard the contractions of the Uterus, while others think they do not at all interfere with such contractions.

Cazeaux admits as does also Professor Simpson that when Anaesthesia is pushed so far as to deprive the patient of power of motion, and complete Anaesthesia is brought about, the Uterine

muscles are paralyzed and the act of labor suspended almost, owing to the contractions being diminished both in frequency and intensity, though if the anaesthetic be given very moderately or at interrupted periods no unpleasant result will be experienced in the non-contraction of the muscular fibre of the uterus.

There are some cases however, which are particularly prone to the susceptibility, and even with moderate doses, labor may be somewhat interfered with, though

such cases are few in number.

Again "Anaesthetics" may cause the relaxation of the abdominal muscles which assist very much in the expulsion of the child from the womb, but it has ever clearly shown that such is not the case unless the Anaesthesia be pushed beyond what would be prudent in giving Chloroform or Ether for any purpose and even if these muscles were rendered useless owing to this cause, Dr Gaseaux says, the auxiliary power of the abdominal

muscles is not necessary in parturition.

Often there is some difficulty in having the Perineum ruptured owing to its resistance to the expulsion of the child, which may be facilitated by causing a relaxation of the muscles of Perineum in using one of the Anaesthetics.

We may next enquire as to the influence exerted upon the mothers health as well as that of the about-to-be born babe. By some the belief prevails, that Chloroform Ether or Hydrate of Chloral

interfere very much with the health of the woman subsequent to delivery, but the experience of some of the abler Accoucheurs, as Simpson and Cazeaux, does not verify such an assertion, whereas on the contrary, recovery is more rapid, and consecutive inflammations are much rarer or less serious than usual as Cazeaux says, and the infant is in no way injured.

If we conclude that the use of the different Anaesthetics is judicious, then a point to determine is, in

what stage of Labor are they best indicated.

Some contend they should be given in the first mechanism of Labor, in order to relax the Os Tincae, especially if it be rigid and unyielding, and continued through the second stage until expulsion is accomplished, while others think it is injurious to both mother and child if given before the head of the infant has entered the Vagina.

As the woman usually bears the pains of "Labor" well in the first stage,

and with fortitude, she becomes fretful nervous apprehensive of danger an exhausted much in strength. When this condition is present, I think one of the "Anaesthetics" should be given regardless of the stage of "Labor".

In Version an Anaesthetic is almost indispensable. One might very readily imagine the torture and excruciating pain a woman would be exposed to by the hand as a foreign body being introduced to accomplish turning, and certainly in this condition Anaesthetics

may be employed with marked good results.

When the application of forceps is necessary to complete delivery, we have a most valuable agent in chloroform to diminish the pain accompanying such procedure, and it is especially useful in removing an adherent placenta. Again it is said that chloroform endangers the life of one more, who is afflicted with heart-trouble but I have seen it given to numerous cases with organic lesions, without noticing any unpleasant effect

and indeed Professor Gaston says "it is the chief anchor to" or relied upon in most trouble when any operation is being done upon the patient".

One reason why so many are prejudiced against the employment of anaesthetics is that post-partum hemorrhage may occur. It has been fully shown by clinical facts that such is not the case if the drug used is not carried to excess so as to bring about profound insensibility and complete stupor, which is not the condition for an easy delivery.

but if given moderately and only to that extent as to only deaden and lessen the sensability, we may apprehend no unpleasant result, and even if such were the case, this danger could be very readily obviated by giving Ergot to increase the contractive powers of the Uterus and also hasten "Labor".

Now as I have tried to mention some of the prominent advantages to be derived from the use of "Anaesthetics" and also the disadvantages and concluding that such

practice is a very judicious one, we may next see as to which of the Anaesthetics will best fulfill the desired effect. Upon this subject, the opinion widely differs, though in this country the prevailing favor seems to be bestowed upon Chloroform.

When an "Anaesthetic" is necessary in version, Professor Twigs of Philadelphia preferred Ether as did also Churchill from the fact that it does not produce so much nausea, and the unpleasant effect remaining after its administration is less than that

following other drugs, and
that it does not retard the
contraction of the uterus, and
still another reason that it
is less liable to be followed
by post-partum hemorrhage
and for a variety of other
reasons which space will not
permit us to mentioned, on
the contrary many men on
the objections to its employment
for it is less prompt in its
action than chloroform 2nd
it is exceedingly irritating
to the larynx, trachea and
entire air passages causing
a most distressing sensation,
as that of suffocating, and

also violent coughing which alone is sufficiently objectionable. 3rd it usually throws the subject into terrible excitement, requiring additional assistance to prevent the woman as well as her offspring from injury during the violent convulsive movements. 4th the amount of Ether required is often from eight to twelve ounces, which quantity will certainly be necessary, if it is very slowly and properly administered in connection with a sufficient quantity of pure and fresh air.

5th The time consumed in order to produce the unconsciousness necessary in turning or other mechanical and manual assistance, is a serious objection and can only be obviated by producing what now may be justly called as Dr Hugo says "beastly drunkeness", by the reinhilation of Carbonic acid gas which is so intensely poisonous to the system

For some of the foregoing reasons it may be inferred that the drug is not the more preferable and I will next consider the agent known as Chloroform which

is a very powerful and impor-
tant agent in the hands of
a prudent practicioner, but
likewise as in the preceding
we find some inconveniences
attending its use.

The admin-
istration is sometimes follow-
ed by nausea and vomiting
not often however is this the
case unless it be taken upon
a full stomach. Another reason
why accouchers are opponents
to its use, is that more
deaths result from the ad-
ministration of Chloroform
than Ether, this we will
admit, but we may quite

readily account for this fact.

Chloroform as I have before stated has been much more extensively employed than any other of the "anaesthetics" and hence the occasional mortality perhaps not more than one in every twenty-five hundred inhaling it, and then nine cases of these five deaths out of the ten, may be traced to some unskillful procedure of the attending physician, which may be in accordance with an old and true saying "Vis medici humanum est".

In order that Chloroform may be used without any

deleterious result, plenty of
fresh air should be given above
all other observances, and a
close watch kept upon the
respiratory movements of the
cheek and the color of the
lips and complexion noticed
as well as the pupils of the
eyes. The pulse should be not-
ed as syncope may follow
its use, though death mostly
occurs from Asphyxia

The patient should al-
ways be given Chloroform
in the recumbent position,
as it acts by causing
anaemia of the brain
which would be assisted

by gravitation of the blood from the brain to the lower portion of the system if she were sitting up, and should be also be given upon an empty stomach as the brain is more anaemic while digestion is going on than at other times, and too vomiting is less liable to occur.

If these observances be strictly adhered to, there will be no unpleasant results experienced.

As to the use of chloroform in obstetrical practice, it should be given

intermittently, that is when a bearing down pain occurs, a few inhilations may be given and as soon as the pain ceases, its use may be discontinued until the succeeding one. The fluid extract of Ergot may be given in connection with Chloroform as soon as the "Os" is sufficiently dilated, in ℥j dose to be repeated if necessary in order to assist the contraction of the uterus and prevent hemorrhage which is liable to occur even with any "anaesthetic"

Of late years the Hydrate of Chloral has come into vogue the use of which is strongly recommended by Professor Playfair of King's College. Of it he said that it does not lessen the strength of the pains in the back, while its assuaging power is no less enhanced and does not bring about the internal hæmia which is said during the use of Ether or Chloroform, and again it is not as rapid in its effect, which I think is a decided disadvantage when

it is necessary for us to resort to any harsh means to accomplish delivery.

It should be given in a XV gr. dose when the pains become developed and severe during the first stage stage of "Labor, and in twenty minutes repeat the dose and even the third and fourth doses may be given after the proper interval, if the Labor be a prolonged and tedious one.

Now that I have spoken of Anaesthetics in general and discussed

some of the more prominent advantages and disadvantages attending the use of each, we can not decide which "Anaesthet" is should be used, but for myself in practice I greatly prefer Chloroform.

July 20th, 1878.

# Thesis

on

# Diptheria

Respectfully submitted
to the
Examination
of the
Faculty of Physic
of the
Maryland University
for the
Degree of Medical Doctor.

J. R. Brodbeck
Penna.

# Diptheria

Diptheria is an acute specific disease characterized by the formation of whitish membranous pellicles on mucous surfaces more especially the Fauces, Larynx, & Trachea, and excoriated portions of the skin, rapid developement of Anæmia, and extreme debility, and during apparent Convalesence temporary Paralyses.

History and Causes. Diptheria being described by many authors of ancient date, has however not been known by the present name untill described by Brettoneau. The frequent occurence of diptheria in epidemics, and the great mortality attending, has of late years lead to a closer investigation of its causes and the investigations, have been carried on by such distinguished Microscopist's

as Oertel, Buhl, Heuter of Germany, and others of equal reputation, who experimented upon dogs, and as the results of their experiments, believe they have discovered the cause of this fatal disease. The minute objects which the observers alluded to, have discovered as the results of their researches, and which, they suppose cause the disease, are endued with life, and motion. They belong to the class of microscopic vegetable parasites, which have been designated bacteria. These bacteria have been divided by Cohn into four genera, with species, but only two, it is thought, sustain a causual relation to diptheria, namely, the Sphero-bacterium, or as, Oertel, designates them, the micro-coccus, and secondly Bough

in less degree, because less numerous the micro-bacterium or rod like bacterium. The microscope in the hands of various observers, has revealed in every tissue, which is the seat, of diptheritic inflammation, and in every diptheritic pseudo-membrane, immense number of spherical bacterium, accompanied by a small number of micro-bacterium. As the symptoms of diptheria become more grave, a proportionate increase of bacterium take place. In the Commencement of diptheria, the grayish white spots which appear upon the surface, consist entirely of these bacteria with epithelial cells, and mucous, while later on pus appears, as the results of inflammatory reaction. These facts

having been ascertained various experiments have been made, by Oertel, and others in order to obtain the exact relation of these two bacteria to each other. The mucous membranes of air passages, the Cornea, and Muscles of animals were inoculated with diphtheritic matter, and these two bacteria found to have increased rapidly, penetrating the tissues, and infecting the system. Oertel, says: "I have noticed in numerous inoculations, that if various bacteria, as for instance, bacillus spirillum, and bacteria lineola, were present in the matter inoculated, only the Sphero-bacterium, and the bacteria thermo. (in small numbers) were present and showed signs of growth, all the others rapidly disappearing.

The importance of such experiments cannot be too highly estimated. In the opinion of those who have performed them, the conclusion is inevitable that diptheria is produced by bacteria, which, coming in contact with mucous surfaces, or the cuticle deprived of its epidemic covering, adhere to it, multiplying rapidly, burrow through the tissues, and entering the system, through the vessels, infect the system entirely. The reason assigned for its more frequent occurence, on the nasal, and faucial passages, is that they, being used in respiration, the air, supposed to contain the germs of the bacteria, constantly passes over these surfaces. Is diptheria primarily local? is a question as much involved, in discussion

as is the cause of the disease. If we accept the bacterian theory, we would be lead to suppose that the disease is at least local in its commencement, and is amenable to local measures. Thus Physcians, who see much of it, often observe, that it may commence with high fever, and a Pseudo-Membrane form on the fauces and yet by prompt, and judicious treatment these symptoms abate, the inflammatory redness and exudation disappear, and health be fully restored in three or four days. Again, the fact that in almost all instances the primary manifestation of diptheria is at one point only, and, that afterwards various diptheritic inflammations may occur in different parts of the system, favor the idea that the

contagious principle acts at first purely locally. Again, diptheria, has been frequently known to commence upon the fresh sore of a surgical operation, the patients at the time being perfectly well, except as regards the surgical ailment. This admits of no plausible explanation except that the specific principle has alighted upon the sore, and has there produced the specific inflammation by its strictly local action

Nature. Diptheria, is a disease of all Countrys, and all seasons, and affects both children, and adults, the former class however, seem to be most frequently effected, and is comparitively more fatal, to them, a large Majority of the cases, occur between the ages

of two, and ten Years. rarely occurring prior to the fourth month. There is reason to believe that the sanitary Condition of houses or localities, and the condition of health, to those exposed to its poison, have much influence over the disease. The weight of testimony is that it belongs to the class of filth diseases, but further than that its source is not clear. Families which would be scandalized at the suggestion of untidiness are attacked, while others of filthy surroundings escape. This simply shows that our sense of cleanliness needs cultivation, so that we may discriminate between what is offensive to the system, and what is offensive to our falsely educated tastes. The farmers

wife, to whom the closed, and carefully dusted parlors, on the preternaturally scrubbed floor are the essentials of neat= ness, may endure the proximity of a sour swamp, or of the kitchen cesspool for years without taking offense. To many a careful, and laborious housekeper a chance cob.web, on the childrens "litter" of a few hours play, will outrank in heinousness a defective drain for the cellar." A most remarkable case related by Professer T. T. Donaldson, a case where he attended in consultation a fatal case of diptheria, one of the inmates left the house, and during her absence the carpets were taken up, some of the walls repapered, others white-washed, and disinfectants extensively used, at the end of one month

by the Professors consent, she returned and occupied a room in the back building some distance of sixty feet, from the former room, she took the disease and died in two days". After all precaution a spark of contagium no doubt remained. It may be presumed that the patients is most apt, to impart, the disease while the membranous exudation is present, but it is not certain at what time, they cease to be infections, Children who appear to be well, for two or three weeks, seem occasionaly to have given the disease to others

Anatomical Characters } Immediately in the commencement of diptheria we observe redness of some portion of the mucous surface. The color is sometimes a deep, bright red

almost like arterial blood, in other cases it is a dusky red which indicates a vitiated state of the blood, the mucous membrane is thickened and softened, its follicles tumefied, and actively secreting. the uvula is elongated, and enlarged from watery infiltration, the tonsils are tumefied, but less so then in tonsilitis. Within a day, and usually within a few hours, from the commencement of the inflammation, a small slightly raised spot is observed usually upon the tonsillar portion. This spot termed the pseudo-Membrane gradually becomes firmer, and at the same time thicker and broader from fresh exudations underneath, its color is grayish or grayish white, it becomes firm and is not easily

detached). Attempts to seperate it often lacerate the engorged capillaries, producing a free flow of blood. It ordinarily attains a thickness of about one-sixth of an inch. This membrane is nothing that is super-imposed, nothing secreted, but the mucosa itself, as far as it has been partly tumefied, partly rendered anæmic, even by the excessive infiltration with cells. And it can undergo no other changes but putrefaction, or decomposition. If the exudation is examined ..... by the Microscope as soon as it appears upon the fauces, it is seen to consist largely of cells, plastic nuclei and pus cells mixed with epithelia; with these elements we find amorphous matters

and ordinarily interlacing fibrillae. Subsequently fibrillation is more complete, and the false membrane consequently more firm and resisting

Symptoms = The symptoms in the Commencement are often mild. There is a degree of chilliness, with rigors, which is succeeded by more or less fever, headache, langour, and loss of appetite. The symptoms are like a cold, for which, indeed, the initial stage of diptheria is often mistaken. So insidious often is the Commencement that the disease has advanced beyond recovery before advice is sought. The tongue is covered with a moist fur, the appetite is poor, bowels regular. The pulse in different cases varies greatly in volumne and

frequency, it is often full and strong in the first days of the disease, but in the latter part, when death from blood poisoning approaches, it is feeble and slow. At first there are no marked symptoms referable to the Respiratory Apparatus, there being present only that degree of acceleration of respiration which corresponds to the amount of fever. In severe cases the breath is ordinarily offensive, having a gangrenous odor. An efflorescence is sometimes observed upon the surface during the period when the temperature of the skin is exalted. This rash does not differ from ordinary erythema. It is not attended by the minute papulae which produces roughness of the surface in

Scarlet fever. The most interesting and important, however, in the constitution of the urine, is the occurence of albumen in it. This element was first discovered by Mr. Wade, of Birmingham, in 1827, and since then various observations in different epidemics and localities establish the fact that albuminuria occurs in the majority of cases of severe diptheria, and in many of a mild form. It often occurs early in the disease, but in others it does not appear till the close of the first week, or the commencement of the second week. It continues three or four days to as many weeks, when in favorable cases it gradually becomes less and soon disappears

If we examine the albuminous urine of diptheria with the microscope, we find in it fibrinous casts and altered renal epithelial cells. These cells are opaque or granular mainly from the deposit of fatty particles in their interior, this appearance however is not peculiar to diptheria.

Diptheria of the air passages constitutes, one of the most frequent, and also most fatal varieties. Under these circumstances, Croupal symptoms manifest themselves, with the first onset of febrile disturbance. The Pharyngeal affection is severe, and been recognized before Croupal symptoms have made any appearance. Diptheritic affection, of the Larynx maybe

Secondary to, Pharyngeal diptheria.
Extension of diptheria to the nose
or deeper Tissues of the neck Con=
stitutes the malignant type so called
which comes on with no more severe
symptoms, than do the other forms.
The extension to the nose, is indicated
by catarhal symptoms, soreness of
the nostrils, with some epistaxis, and
possibly a flux of bloody ichor.
Lachrymal duct becomes involved
the, lachrymal secretion by the duct
becomes arrested, the eyes begin to water,
in consequence of the arrest, and
false membranes have been known to
form on the Conjunctiva, Anaemia,
and prostration in this type come on,
rapidly, pulse rapid, irregular, small

and feeble, death occurring from asthenia.

Sequelae = Those who recover from a severe attack of diptheria, remain often for weeks with a pale and cachetic appearance. The blood evidently is profoundly altered, so that there is a deficency of red corpuscles or a state of apanaemia, which slowly disappears. Another sequel, whose etiology is not fully understood, is paralysis. The patient seems fully convalescent, The fever has ceased, the appetite is returning, the Anaemia is less, and there is prospect of a speedy restoration to health, when this nervous affection is developed. The muscles most freqnently affected

are those of the pharynx, so that deglutition is rendered difficult. The aliment taken passes back through the nostrils, or is not swallowed till after several successive efforts, sometimes the food lodges in the larynx, producing violent coughing. The majority of those affected with paralysis recover, although few regain the complete use of their muscles in less than one month, and many do not till between two, and four month.

Prognosis = It is more favorable when occurring sporadically, or at the close of an epidemic, than when the epidemic influence is prevailing. When there is, intense pharyngitis. an extensive pseudo-membrane, and

great cervical cellulitis, and adenitis, indicate a form of the disease which usually proves fatal. Since these inflammations of the neck indicate absorption of the poison, infection of the system may then be regarded as inevitable, and this is ordinarily fatal. Also when the phenomena of Croup arise, there is a slight prospect of recovery. Great acceleration of the pulse continuing after the first week, a pallid countenance, softness or flabbiness of tissue, the occurence of haemorrhage, from the fances, or other parts, are prognostic of an unfavorable ending.

Diagnosis.= In most instances this is readily made when the case has

continued for a few hours, for the characteristic "false" membrane is observed on inspecting the fauces. The diagnosis from true croup is sometimes difficult when a prominent lesion is in the larynx. Diptheria is usually accompanied by more tumefaction of the lymphatic glands of the neck, and more discharge from the nostrils. Moreover the laryngitis is commonly secondary in point of time to pharyngitis, whereas in croup laryngitis precedes and predominates. Sometimes the occurence of albuminuria with or without fibrinous casts, aids in establishing a diagnosis, for albuminuria is common in

diptheria, and rare in Croup. From tonsillitis, in this instance the tonsils become overcast with pus similar to diptheria, but the fact that diptheria forms an ex=udation involving not only the tonsils, but extending to the pharynx, involving the uvula, and extending downwards to the larynx, will at once help to establish the diagnosis between tonsillitis, and diptheria

Treatment:- The treatment of diptheria is a subject of much interest and importance. As soon as the bac=terium or fungus appears in patches on the throat, it should no more be neglected then a bleeding gash or a broken arm. It has been found

by actual experiment, both in and out of the body, that this bacteria is killed by several drugs. among which is chlorine water, diluted with the addition of two to four times the volume of Water used as a spray or Gargle, Carbolic acid has also been highly recommended as a local application, also, Monsels solution of Iron. Chlorate of Potassium. Nitrate of silver in solution. Alum, Permanganate of Potash. Prescription by Prof Howard.

℞.

Carbolic Acid gtt x

Liq. Ferri subsulphatis ℥ iij

Glycerine ℥ vj

Apply locally by means of a Camels hair brush every three or four hours.

Its Constitutional symptoms however must reciere attention, as well as the local symptoms for such, Alcohol has of late Years been highly recommended in this disease for its stimulant action. Quinine to reduce the temprature, and act as a tonic. Chlorate of Potassium, Tincture Ferri Chloridi. The Paralysis often following diptheria, may be treated by Strychnia, and Galvanism.

Subject— "Cholera Infantum."

This is a disease peculiar to Children, and seems to be confined chiefly to the United States. It makes its appearance usually with the beginning of Summer, and subsides with the return of Autumn; since it is called, "Summer complaint of Children". It prevails more extensively in large Cities, where the population is dense.

Symptoms:—

The usual precursor of this disease is diarrhoea, which may continue for a longer or shorter period before the disease is fully established; but as a general rule, it does not long precede the vomiting; which not unfrequently attends it from its commencement. The matter ejected consists, first, of the recent contents of the stomach and bowels; after which it becomes more liquid; occasionally containing small lumps of fecal matter. The dis-

over

Charges may assume various colors; they may be green, yellow, brown, or clay-colored, with more or less mucus, and not infrequently tinged with blood. They may also assume different odours from one that is scarcely perceptible up to the most offensive, but are generally void of the healthy fecal odour. Febrile Symptoms commonly make their appearance early in this disease, which are spoken of as being remittent; the exacerbations being in the evening. The pulse is usually frequent and full, or small and corded; the mouth hot and dry, with great thirst; the appetite is generally absent; the tongue slightly coated; and the brain sympathetically deranged, exhibiting delirium & stupor. There seems also to be some unequal distribution of the temperature; that of the head & body is often elevated above the healthy standard of temperature, while the extremities are cool. If the disease is now going to terminate fatally, the following results usually supervene; emaciation takes place very rapidly; the muscles become flabby; the skin hangs loosely in folds; the cheeks look pale, and the eyes

sunken, and the child usually sleeps with them about half closed.
As the disease advances, the abdomen becomes tympanitic, the mouth aphthous, and occasionally petechia appear on the surface of the body; the circulation is carried on feebly; the skin becomes cold and clammy; great restlessness, and at length coma, which is soon succeeded by death.— The fatal issue is at times preceded by convulsions.
Dr. Dewees describes a peculiar kind of vesicular eruption occurring upon the chest, which he regards as nearly always a sign of fatal termination. And according to the same Author, the escape of a live worm or worms, in the chronic stage, is a fatal omen. In its more violent forms, however, the disease may terminate more speedily; the vomiting and purging sit in with fearful violence; with scarcely an intermission, and generally attended with more or less intestinal pain, and at times spasms of the muscels of the abdomen, and extremities, greatly resembling Cholera Morbus of a dults. Great prostration comes on, followed by coma, and death not unfrequently in twenty-four hours.

Besides the above Terminations, the disease may assume the form of a chronic diarrhoea, or dysentary, and continue for months, and at last exhaust the patients strength, by the frequent and copious discharges; or, the return of Autumn comes to the relief of the fearful symptoms.

Causes:-

A variety of causes may serve to call an already existing predisposition into action; such as improprieties in diet; worms in the alimentary canal; dentition; their clothing &c; but the most efficient one, doubtless, is the aggrigation of the large crowds combined with warmth and improper ventilation: as is proven by its greater prevalence in thickly populated cities. Early infancy seems to possess some predisposing influence; for from the Statistical reports, the greater amount of mortality is during the first year.

Pathological Characters:-

The brain is not unfrequently found in a state

of Congestion; and in protracted cases, serous effusions in the ventricles. The intestinal canal almost always exhibits more or less marks of irritation or inflamation. Where the disease has existed for any length of time the stomach and bowels are apt to present red or livid spots; the mucus follicles are unusually found enlarged, and sometimes ulcerated; and the mucus membrane itself may be found softened. The liver is usually found congested and the gall-bladder distended with dark green bile. The bowels generally contain a tenacious mucus, corresponding in color with the stools.

## Diagnosis:

As a general rule, the age of the patient, the season of the year, the prevalence of Cholera Infantum &c, suffice as diagnostics; and where other diseases, such as Cholera Morbus, Diarrhoea, Dysentary, irritations produced by teething &c, are so analagous as to obscure the diagnosis, the treatment is essentially the same.

over

## Prognosis:-

The disease may be considered as doing well, when the discharges return to their healthy color, or condition, and become less frequent; the stomach retentive; the pulse slower and fuller; and when the temperature returns to the surface. On the other hand, when the vomiting and purging are almost incessant; the skin cold and clammy; the pulse small and corded; and the child lying stupid, with half closed eyes; the prognosis as a general rule is unfavorable.

## Treatment:-

In the medical treatment of Cholera Infantum, the most important indications to be fulfilled, are; first, to allay the irritability of the stomach. Secondly, to discharge the offending matter from the alimentary canal; and, thirdly, restore the natural secretions. So long as excessive vomiting and irritability of the stomach continue, it is evident, all our efforts to administer medicine by the stomach must prove

abortive, and thus deprives us of the use of our most potent remedies. If the irritation seems to arise from some offending matter in the stomach, it will in all probability be better to encourage the vomiting by administering warm Chamomile tea, or simply warm water to wash out the stomach. After which, small quantities of the effervescent draught; some cool acidulated drinks, or aromatics may be given, at the same time Stimulating cataplasms, or rubefacients may be applied to the epigastric region; with a view of calling the excitement to the surface. If these remedies fail, Dr. Dunglison recommends an injection of salt and water in the way of revulsion; or an Anodyne injection may be resorted to if no cerebral symptoms be present. When the stomach has become tranquilized, we should endeavour to clear the alimentary canal by administering some mild purgative; such as Aromatic, Syrup of Rhubarb, Castor oil,

or Calomel. But if much acidity be present, as is indicated by the sour smell and green color of the evacuations, it may be better to administer Magnesia combined with Rhubarb. But in the great majority of cases, the most effective cathartic is Calomel: mild in its operation when properly administered. It is probably the best of the Mercurial remedies; demanded, and generally resorted to in fulfilling the important indications of overcoming the portal congestion, and restoring the secretions to a healthy condition. The dose should be graduated from a quarter of a grain to a grain, every one, two, three, or four hours, according to the age and condition of the patient; and persisted in until its effects are seen in the evacuations; after which the dose may be less frequent. If there be much pain in the bowels, the Calomel may be combined with Extract of Hyoscyamus, or if not contraindicated with Opium. If there be an excess of acid present, and at the same time no laxative indicated, the Cretaceous Mixtures may be beneficially employed. In the consti-

of the disease there be much tenderness of the stomach and bowels, and the patient not too much exhausted, a few leaches may be applied beneficially over those regions; followed by warm fomentations.
If the brain be threatened with inflamation, the lancet may be resorted to, and the symptoms combated by applying cold to the head. If the extremities are cool, sinapisms or blisters may be applied to the wrists and ankles. If the disease assumes a dysenteric form characterised by small mucus or bloody evacuations, with tenesmus; the oleaginous mixture should be employed. If the complaint be the character of Diarrhoea, and there is little or no irritability of the stomach, but marked by deficiency of biliary secretion, minute doses of Calomel, Opium, and Ipicacuanha may be happily associated to guard irritation of the bowels, and give direction to the skin.
This plan of management should be continued in, until the stools present a healthy character. If the disease continues, and threatens to exhaust the patient by the excess of the evacuations, it becomes necessary to arrest them by active astringents; such a Acetate

of lead seems to be the most active by a majority of Authors. This may be given alone, or combined with Opium, or Dover's powder. Some however prefer the vegitable astringents, such as Kino, Catechu, &c; of which no doubt has been given successfully. In cases of great debility, Stimulants should be given. In a case of long standing, I have known Terpentine and Sulphate of Quinia in small doses to be given with entire success. In the early stage of the disease, the practitioner should not overlook the state of the gums. If they be found red, tense and painful, they should be freely lanced. The diet too must not be forgotten. — All agree that the food of the infant should be the Mother's Milk; if she be diseased, then, that of a healthy wet nurse. If weaned, the best substitute is fresh Cow's Milk diluted with water. Next comes farinaceous liquids, prepared from Barley, Rice, Sago, wheat bread &c. When there is much fever, Gum water, or other Mucilaginous drinks may be substituted. To quiet excessive thirst, pounded ice contained in gauze, may be given the child to suck. The clothing should also be attended to.

Thin flannel should be worn next the skin and the feet and legs may be protected with woollen stockings.
In every stage of the disease, remedies should be employed with a reference to their impression upon the surface. The warm bath above may be used at first, but in the more advance stage, salt or mustard may be added; and if found beneficial, should be repeated daily. The salt towel may also become a useful agent in fulfiling this indication.
In the advanced stage, the flannel bandage has been found of great benefit.—
So much for the medical treatment, and management of the disease. But obviously the most important indication, is, the removal of the cause, and the prevention of the disease. While the cause continues to act, no treatment of the practitioner will be sufficient to cure the disease. The disease may seem cured; but it will often return under less favorable circumstances; and the constitution may be worn down, before the cause shall

over

cease with the hot seasons. The child should therefore, be promptly removed to the pure air of the country. If this be impracticable, it should be carried out daily in the most healthy, and airy portions of the city, and kept there as long as possible: at the same time having the apartment at home well ventilated, and all filth removed from the chamber. A happy change speedily follows the removal of the little sufferer to the country. The fresh air, with proper attention to clothing and diet, will often restore the patient without any medicine.

As prophylactic remedies, it is highly important to attend to the rules already given; for diet, dress, pure air, dentition; and in addition promptly to correct all disorders in the alimentary canal.

Respctly. Subt.
B. F. Kibler.

Feby 7th 1879. Balto. Md.

Subject - "Cholera Infantum"

Respectly. Subt. —

B. F. Kibler

Feby. 7th 1879

University of Maryland

# Thesis

on

# Postpartum Hemorrhage.

Submitted to the Faculty

of the

University of Maryland,

School of Medicine,

by

Wm. B. Pide.

Jan. 21st, 79.

# Post-partum Hemorrhage

## Its Causes Prevention Cure

When we consider the close relation that the blood bears to animal life, we are not surprised that the loss of even a small quantity of this important fluid should cause a degree of apprehension in the mind of the careful practitioner. This anxiety may exist for two reasons (1st) It is very well known to the laity as well as to the profession that the loss of blood in itself subjects the patient to danger from prostration. It is therefore, very desirable to prevent it, that the mind of the patient, as

[illegible] friends present may not be made uneasy. Secondly, the practitioner knows the frequent difficulty met with in endeavoring to arrest it. When hemorrhage occurs in one of the extremeties, or in any part of the body where pressure can be applied, there is usually little difficulty in its arrest. Not so with hemorrhage from the uterus. Here you have a large hollow organ, removed from the hard parts, into which the blood can be poured. Naturally the first means of arrest to suggest itself is pressure, but, from the very nature of the case, this is ineffectual. There other measures, [illegible]

we shall endeavor to explain, must be made use of.

Inasmuch of the frequency of the occurrence, the difficulty of arrest, and the danger to life of post partum hemorrhage, it becomes the duty of the practitioner to fully acquaint himself with its causes, its prevention and its cure.

Before enumerating any of the causes, we will describe some of the phenomena of gestation.

During the period of gestation, the nutrition of the uterus is greatly increased. Its muscular tissue is greatly hypertrophied; its mucous lining

is in very close relation with the vascular supply of the mother. There are only two membranes interposed through which the nutrient principles of the blood by osmosis can freely pass.

During labor, the intimate relation that has existed between uterus and placenta is severed; and thus the large sinuses are left in the uterine walls. This condition is totally dangerous, for when labor progresses favorably the uterine muscular fibres after the birth contract and close these open vessels. In this way thrombi are formed and hemorrhage is permanently arrested. This is the usual

favorable [illegible] labor [illegible]
When, on the other hand, these con-
ditions are not fulfilled, [illegible]
more or less hemorrhage.

Among the causes of post-partum inertia of the uterus may be mentioned as an important one. This condition is frequently brought about by a protracted labor. The patient's strength is exhausted by frequent but ineffectual pains; and, when delivery does take place, the muscular tonicity of the uterus is lost, and it remains flabby and relaxed. This condition may, on the other hand, exist in those of weak constitution, in whom, from

the beginning, the pains are weak and infrequent.

Again hemorrhage may be due to adhesion of the placenta. Instead of coming away freely, it is only partially detached from the walls of the uterus. As a result of this, the regular contractions are hindered and there is incomplete closure of the blood vessels. In such cases, hemorrhage is the natural consequence. Another form of irregular contraction is that known as the hour glass contraction. This peculiar condition is due to contraction of the os uteri internum, and is said to be caused by undue trac-

tion on the cord.

The next and last causes that we shall mention is a natural predisposition to hemorrhage. Such persons are said to be of the hemorrhagic diathesis. These persons frequently suffer from hemorrhage from the most trivial causes. Injuries, which in other individuals would scarcely be worthy of notice, in them become frightful from the great loss of blood. This tendency is no where more marked than in child birth. Knowing this idiosyncrasy, we should always be on our guard, and take what can be [illegible] to [illegible] having recourse to the most [illegible]

causes of this accident, we will now give the treatment.

All will admit that the preventive treatment should be the first to engage our attention. Frequently by skillful management of the third stage of labor, this unfortunate accident may be prevented. We find that it occurs most frequently with unskillful and unprofessional people; and that the more careful and the more experienced accoucheurs become the less frequently do they meet with it.

In view of these facts, it is evident that a knowledge of the procedure in the third stage of labor is highly

more powerful means must be used. Of this class, one of the most important is Ergot. When hemorrhage is expected, this is par excellence the remedy. There are, however, some precautions to be observed in the administration of this medicine. A digital examination should first be made; and, if the child be found properly presenting, and the os well dilated, it may be given. The preparation commonly used is the fluid extract. This may be given either by the mouth, in drachm doses, or hypodermically in twenty minim doses. One dose may be all that is required; but it is well, after the expulsion of the child, to give a second dose to

period after delivery.

Some practitioners, not skillful in the use of this agent, may condemn it and may make many objections to its use, but we are inclined to believe if these very men would become more familiar with the use of it, they would no longer condemn, but regard it as a very useful and almost indispensable remedy.

Another point in the prevention of post partum, is not to be too meddlesome or in too great a hurry to remove the placenta. We should wait twenty or thirty minutes for its expulsion; and, if it is not then expelled, we should pro-

Some

[illegible]
[illegible] the mother [illegible]
[illegible] the [illegible] may bring
about contraction.

Again knowing
the sympathy that exists between the
uterus and the mammae, many
physicians have advised the ap-
plication of the infant to the breast as
soon [illegible]
after [illegible]. This plan is often
[illegible] well, but
should not be [illegible] to the exclusion
of other and more certain means.
Some men recommend the [illegible]
but this, for obvious reasons, is
objectionable. After delivery,
have the [illegible]

all these measures, we have to resort to something more energetic. This is found in the intra-uterine injection of styptics, particularly a solution of the subsulphate of iron. This mode of procedure is extremely [illegible] for the same danger [illegible] ted. Our patient is likely to die what measures to follow? Shall we let her die, and shall we face the responsability and endeavor to rescue her from the arms of death.

Having emptied the uterus of clots, the nozzle of the syringe should be carried to the fundus and the fluid injected. This plan will usually arrest the sever-al hemorrhage.

After a profuse hemorrhage, there is generally great prostration. Our treatment must now be directed to this condition. The patient should be placed in a dark room, and absolute quietude should be enjoined. Stimulants should be given, and, in some cases, transfusion of blood is proper. On taking of the rules given in this thesis [illegible] [illegible] affection of the spleen would be less frequently fatal than first [illegible].

A Thesis

on

Scarlet Fever

respectfully submitted to the

Provost, Regents and Faculty of Physic

of the

University of Maryland

for the

Degree of Doctor of Medicine

by

William A. Dietrich

of

Bremen Indiana

A.D.

1879.

Scarlet Fever also known as Scarlatina is an acute exanthematous fever. It is an epidemic and contagious fever characterized by great heat of skin, frequent & full pulse, sore throat, and scarlet rash. It may occur at any age but is most common in children. There are two forms to mild and the grave.

Symptoms.

The mild cases are those which pursue an even and regular course in which there occur neither violent nervous nor threatening symptoms; while grave cases are those in which occur severe

nervous symptoms as violent deli-
rium, coma or convulsions; and danger-
ous symptoms in the form of diph-
itic, ulcerative or gangrenous inflam-
mation of the fauces.

Mild cases. Stage of Invasion.

The onset is generally sudden and
unexpected; it usually occurs at
night with fever, restlessness, sore
throat and scarlet eruption.

The first symptoms observed in
most cases is fever with accele-
ration of the pulse and heat of skin.
In other cases the fever is preced-
by languor, lassitude, pains in the
back and limbs, and rigors.

In most cases vomiting occurs or if
not vomiting some degree of nausea.

There is anorexia with great thirst; the bowels are usually a little constipated. The child is quiet and dull or restless and irritable. The face is flushed; and the eyes slightly injected. These symptoms generally lasts from twelve to twenty four hours, but they may continue either a shorter or longer period.

Stage of Eruption.

The eruption is first observed on the face, neck and shoulders; and then extends rapidly over the whole surface. It generally reaches its maximum in four days.

It appears first in small dark red points, forming patches of considerable size. The surface of the erupti

is smooth and disappears upon pressure.
The eruption is brighter on the back, hips and joints than elsewhere.
The face, hands and feet often present a swollen appearance. There is a feeling of burning irritation and itching of the skin.
There is an increase of fever with the coming on of the eruption; the temperature rises to 103° and 106°; rarely higher than 106. The pulse varies from 120 to 160 per minute. The tongue is covered at first with a whitish fur which disappears in a few days assuming a deep red color; commonly known as the strawberry tongue.

The pharynx and tonsils become r
and swollen; the submaxillary
are tumefied.
Stage of desquamation.
After the eruption has reach
its maximum it remains stati
ary for a few days, and then
begins to decline gradually. The
desquamative process usually com
mences about the fourth day.
Grave cases.
The onset is in some instanta
neous, in other cases the child is
restless before the attack comes on,
or it may come on with vomiting
and sore throat, and is sometimes fo
llowed by stupor, coma, convulsions or

death in most cases.

In the majority of cases there is great prostration. The skin burns hot and dry; the pulse rapid, varies from 130 to 160 and 180, weak and irregular; respiration accelerated. There is nausea and vomiting in general drowsiness and delirium occurs.

In the majority of cases the rash appears in twenty four hours. The fauces are red, the tonsils swollen, and there is false membrane formed on the mucous membrane of the throat, it is of a grayish color at first, it may be thrown off in a day or two, but frequently reappears in a few days. The lymphatic glands of

which it is formed may become ulcerated or gangrenous.

The submaxillary glands are often involved; there is violent coryza. Conjunctivitis generally occurs with the coryza.

Laryngitis sometimes occurs during the course of scarlet fever.

The duration of grave cases is uncertain, the patient may die in a few hours, or it may last several days or weeks.

Complications and Sequela.

Dropsy may occur as a complication, and is a common and serious sequel. It is more apt to occur after mild than severe cases. The effusion may occur only in the external connective tissue, or it may produce oedema

[illegible] ascites [illegible]
hydropericardium.
A common exciting cause of [illegible]
is exposure to vicissitudes of temper-
ature and currents of air. The
anasarca is first observed in the
face or about the ankles. The du-
ration of anasarca in favorable
cases is not less than two or three
weeks. There is great danger from
retention of urea in the blood
which may produce convulsions,
coma and death.
Character of the Urine in Dropsy.
The urine is diminished in quan-
tity or there may be retention. It
is of a deeper color than natural
and may precipitate urates by cooling.

The reaction is acid; specific gravity is increased; and chlorides and urea are diminished. There is albumenuria and hyaline casts.

Diarrhoea is not an uncommon complication. If severe and continued it is dangerous.

Otorrhoea is a frequent sequel. it may impair hearing permanently; the inflammation may cause necrosis of the temporal bone, facial paralysis and abscess of the brain.

Articular Rheumatism is a frequent complication. The areolar tissue of the wrist is the most common seat for it.

Inflammation of the serous membranes is common. Of apical [illegible]

pleura most frequently, the pericardium next and lastly the peritoneum.
Diphtheria is an occasional complication; it may increase the adenitis and cellulitis around the angle of the jaw.
Suppuration or Gangrene of the subcutaneous connective tissue may occur as a complication. Gangrene is nearly always fatal.
Anatomical Lesions.
There is congestion of the brain, serous membranes, kidneys, spleen, glands of Peyer and intestinal follicles, The gastric tubules are distended and filled with granular matter; the blood globules are increased; the Peyerian, solitary, and mesenteric glands

often [illegible]; [illegible]
are blood clots in the [illegible]
large vessels.
In dropsy the kidneys are enlarged;
the surface is smooth; the malpig-
hian bodies are congested and the
tubules are distended with granular
epithelium.
Causes.
Scarlet fever is contagious and infec-
tious; it is also inoculable.
It is disseminated to patients by
exposure or fomites. A very common
mode of communication is by
clothing. The period of incubation
varies; it is usually from
three to eight days, but some
times only one day.

It occurs most frequently at the age of three and four years; it is infrequent under the age of one year, and infants under the age of three months may be considered safe from an attack of it. Most adults possess an immunity from it. Parturient women are however liable to it. Scarlatina usually occurs but once in the same individual, but a second attack after the lapse of several years is not uncommon, and cases of a third attack are on record.

Diagnosis.

There are no symptoms preceding the eruption which are

us to distinguish scarlatina from the other eruptive fevers.

It is distinguished from [illegible] by the shorter period of invasion by the rash appearing suddenly, by the color of the eruption, and by the presence of pharyngitis in scarlet fever; and the absence of coryza and bronchitis, and the severity of the febrile symptoms, etc.

It is distinguished from roseola by there being more inflammation of the faucial and buccal surface; more continuous and persistent redness of the skin, and greater intensity in symptoms than in roseola. The eruption is more regular in shape in roseola, and there is a slighter

degree of [illegible] [illegible] [illegible] in scarlatina!

Prognosis.

The prognosis depends on the form of the disease, whether mild or severe; the presence or absence of complications; and the strength of the child. The mortality varies in different epidemics. It is greater in the city than country, in hospital than private practice.

Mild and regular cases are rarely fatal. The symptoms which indicate an unfavorable termination are convulsions, excessive jactitation, coma, hydrocephalic cries, feeble capillary circulation, rapid pulse, elevation of temperature, violent pharyngeal

inflammation, with great extreme swelling from the adenitis and cellulitis, etc; all these greatly increase the danger of the disease.

As there are complications and sequelae of dangerous character it is unwise to make a favorable prognosis. The patient is not to be considered entirely safe, until two or three weeks have elapsed after the eruption.

Treatment. Hygienic.

The room in which the child is placed ought to be large and well ventilated. The temperature kept from 68° to 70° F. The clothing should be moderate; and during convalescence the patient ought to be kept in the

[illegible]
not exposed to cold.

Treatment of Mild Cases.

Mild cases of this disease [illegible] but the simplest treatment. The child should be placed in a comfortable and well ventilated room, and cooling drinks, as cold water, or lemonade given frequently. If the bowels are costive a simple enema, or a dose of the syrup of rhubarb should be given. If the temperature is high, the pulse rapid, and the child restless; nitrate of potassium with deodorized tincture of opium will generally give relief. The diet should be liquid at first, as milk with some farinaceous [illegible]

[illegible]. [illegible]
be given. The throat rarely [illegible]
any special treatment. If the
patient complains of pain or un-
easiness in swallowing a gargle
should be given. If the patient
is to young to gargle some chlorate
of potassium or alum can be
mixed with sugar, and a small
pinch placed upon the tongue
every few hours.
Inunction is very often used
to relieve the itching and irrita-
tion of the skin; a good prep-
eration for this is Glycerine and
ointment of rose water.
Treatment of Grave Cases.
In those cases that come on sud

In the nervous symptoms dominate, such as convulsions, pain of the head, delerium and coma; cold applications to the head and ice to the face and arms are beneficial, or the cold effusions may be used. If exhaustion is great brandy with milk or wine whey should be used.

In those cases in which the nervous symptoms are not severe, the temperature should be reduced by the use of cool or cold ablutions, and cold water or ice applied to the head. Internally full doses of quinia or salicylic acid should be used. If the patient sinks in a toxic condition some tonic should be

given. as: chlorate of potassium with the tincture of the chloride of iron; or the phosphate of quinia with the tincture of chloride of iron; or the carbonate of ammonia may be given with stout. The diet should consist of milk and broths.

Treatment of the Angina.

The local treatment should consist of cold applications to the parts affected. Application to the fauces ought to be best made with a sponge, mop, or camels hair brush.

A good wash for this purpose is a strong decoction of green tea, with alum; or Carbolic acid with solution of the sulphate of iron and glycerine; or carbonic acid and chlorate of potassium with

glycerine and water may be used as a gargle.

The diarrhoea when present should be treated with mild [illegible] drinks.

Rheumatism should be treated by opiates to allay pain and the swollen joints wrapped in cotton.

Otorrhoea should be treated by [illegible] ing the ear two or three times a day with a weak solution of alum.

Treatment of Dropsy.

The patient should be put to bed and kept upon a farinaceous [illegible] and drink freely of water, lemonade, etc.

A hot bath may be good in the early stage. The bowels ought to be kept with rhubarb or rochelle salts.

Diuretics and cathartics
be given. The diaphoretics most
serviceable are jaborandi, acetate of am
monia and potassium, bitartrate and
citrate of potassium and spirit
nitrous ether.
In robust children suffering from
scarlatinous uraemia and serous
effusions, the hydragogue cathartics
give the best relief of which the
pulvis jalapae compositus must be the
indication.
Cathartics are more certain in
their effects than either diaphoretics
or diuretics.
If the patient is anaemic the
tincture of the chloride of iron should
be given

Prophylactic [illegible]

It was believed in former years that belladonna had the power to prevent the disease; but this has been abandoned by most practitioners. It is believed by some that the hyposulphite of soda will prevent or modify the disease.

The most reliable prophylactic is isolation and the proper employment of disinfection in the sick room and upon the patient.

A. D. 1879.

Thesis

on

# Differential Diagnosis

—or—

# Scarlet Fever, &c.

Submitted to the
Faculty of Physic
of the
University of [illegible]


## Wm. D. Groton,

In application for the Degree
Doctor of Medicine.

# Differential Diagnosis
## of Scarlet Fever

Of the importance of that branch of Special Pathology known as Diagnosis, it is scarcely necessary to speak. In all diseases, the successful or unsuccessful treatment depends of course, to a very great extent upon the correctness of the diagnosis. Then how important and valuable must be the ability to promptly recognize in the beginning the exact nature of any complaint with which we may at any moment be brought face to face. In practice [illegible] [illegible]

maladies which every year sweep over our land, and leave so

Very few diseases declare themselves at once. Symptoms are often contradictory, signs are wanting or unusual phenomena may be in attendance to [illegible] in our decision. If we are not familiar [illegible] with all the peculiar aspects of disease, as well as the usual appearances which it presents, we will in a great many instances, fail to understand what is before us, and the unfortunate results of our treatment

most always make
diagnosis certain, one way or
other; but the welfare of the patient,
perhaps his life, demands that we
should make
and our patient has

[illegible] with the agonizing [illegible] of heart-broken kindred, and the horrible conviction that our own ignorance has been the cause of it all.

Hence the importance of an early & correct diagnosis. Of course, there are some diseases, which in the beginning, bear so strong a resemblance to each other it is about impossible to discriminate between them. But generally we can find on close scrutiny, & that very shortly, some symptom or symptoms which will enable us to decide without further hesitation, what the disease is. And it is to these distinctive stages of disease with their various symptoms that we should

[illegible]

with what we have to de[illegible].

To be[illegible] a successful diagnostician, three things are necessa[illegible].

1.- A thorou[illegible] with the Et[illegible] of [illegible]. [illegible] We must then be [illegible] various ways in [illegible] may be [illegible] from [illegible] the manner in which it enters the system, the various conditions affecting its propagation, etc. [illegible] this way, we may ofte[illegible] trace out the origin of a [illegible]

[illegible]

2. Perfect [illegible] the clinical [illegible]. He must [illegible] thoroughly [illegible] its symptoms from [illegible] not only the which characterize the disease in its regular form but those which occur irregularly. If there is no eruption, we [illegible] able to discriminate it readily from the eruptions of all other diseases. The course of temperature, with its [illegible] ous changes should be well known to [illegible] the [illegible] mode of termination, etc. Ag[illegible] should be able to recognize [illegible] all its various forms, with its complications & sequelae.

3.- A clear & accurate understand

ing of the [illegible] [illegible]
[illegible] condition.

Especially applicable are these three points to the diagnosis of Scarlet Fever the certainty of which alone should prove sufficient incentive to the [illegible] practitioner to make use of any [illegible] which may enable him [illegible] to recognize it.

In differentiating Scarlet Fever from Measles & Rötheln [illegible] the [illegible] [illegible] diseases resembling it & the ones [illegible] it is most liable to be mistaken, we think it best to compare their different [illegible] points of agreement & of difference etc. [illegible]

to follow with a few words on certain symptoms of Nausea, Diarrhœa, Indigestion, etc. which often resemble those most of S. Fever and by the careless or inexperienced [illegible]

Period of Incubation:-

After [illegible]

itself quickly, often in twelve [illegible] hours ranging from one to six days. [illegible] where as in Small Pox the incubative stage is more or less lasting from ten to fourteen days.

Mode of Invasion:-

[illegible]

In Measles
occasionally
three cases:
Scarlet Fever, confl
for we may ha
Small Pox it is
occurring very frequently d
or two. The irritabili
the stomach is much
marked & persistent than
other eruptive fevers.

Temperature. This
Fever, but usually there is a rapid ex
altation to 104°7 or more, the pyrexia

being generally more [illegible]
[illegible] Recess, than in the other.
In Measles the fever [illegible]
generally less [illegible] the thermo-
ster in the axilla registering [illegible]
[illegible]. After the first day it is not
uniform, there being [illegible]
missions & evening [illegible].
In Small [illegible] the fever [illegible] to
continue or [illegible] more or less fre-
quently up to the [illegible] of the
[illegible] which [illegible]
[illegible] of [illegible] [illegible]
[illegible] [illegible] the temperature
[illegible] [illegible] [illegible]

Nervous Phenomena, as [illegible]
convulsions, or delirium, may occur
in Scarlet Fever during this stage

danger

In Measles

not very

In Small Pox

Epilepsis, anorexia, lassitude

pain in the head &

is seen about the same time around
shoulders, spreading rapidly to the
face, trunk & limbs, the whole body
being covered in twenty four hours.
Rarely after the body & limbs are first
to show the eruption, the face & neck
being invaded afterwards & this order
is much more frequent in this
disease than in Measles.

In Measles, the eruption generally
takes place on the fourth day, appear-
ing first about the temples & fore-
head, extending in a few hours over
the head & neck, & in from thirty six
to forty eight hours over the whole body.

In Small Pox the third day or
perhaps the beginning of the fourth
discloses the eruption, which is first

seen before the face, which the [illegible]
skin of the chest and arms
being invaded almost simultaneous-
ly. Then the trunk & finally the ex-
tremities are affected, the whole er-
uption being finished in three days.
Exceptionally the first appearance of
the eruption is about the [illegible].

Character of the Eruption. In Scar-
let Fever it is a [illegible] [illegible]
somewhat that produced by external
heat, or the [illegible] phase of [illegible].
It begins as minute dots or points
coalescing into patches of irregular
size & shape, which are not elevated
above the surface, but feel rough to
the finger sometimes from [illegible]
ment of the cutaneous papillae.

At times it covers the whole [illegible]
and again, it may remain [illegible]
[illegible]
and it is most vivid where the sk[illegible]
is thinnest. It is not uniform
but inspection reveals points or
specks of a darker hue, scattered
over the patches. Sometimes the entire
surface is of a uniform, vivid red,
presenting a "boiled lobster" appea[illegible]
On pressure, the redness disappears,
but in favorable cases, and in vigor-
ous, hearty children, it returns im-
mediately on removal of the pressu[illegible]
If this return be slow, it indicates a
sluggish circulation; and if marked,
malignancy of the disease.

The integument may be slightly swollen, most evident in the hands, feet & face. Burning & itching are quite common, & often very distressing. The eruption reaches the maximum of its intensity generally on the third day after its appearance. The cutaneous eruption is sometimes slight, when it is generally [illegible]. At times, it fades away soon after its first appearance, & then reappears. Usually it is most [illegible] in the evening, during the exacerbation. In anomalous cases, the eruption may be altogether wanting.

In Measles, the eruption com-

[illegible]

[illegible]

to distinct papules, resembling flea bites, and these tend to arrange themselves in patches of regular, semi-lunar or crescentic shape in marked contrast to the irregular shapes assumed by the patches in Scarlet Fever. The color is also deeper & duller, [illegible] pearing momentarily on pressure. Sometimes there is pruritus but not marked. The surface between the [illegible] es looks normal. It declines generally [illegible] that is the [illegible] day of the fever, but sometimes [illegible] sometimes later.

In Small Pox the eruption appears first as small, purplish macular, which change rapidly to papules.

Besides the eruption itself, the
are in this stage several symp
of importance which we may c
sider here with advantage.

In all three at times, but most
often in Scarlet Fever + Measles, th
chill, and, more especially in the
former, by a transient convulsion.

Fever is often a prominent symp
tom, but especially so in Scarlet Fever.
and presents these differences in its

three diseases, which are of diagnostic importance. In Scarlet Fever, the temperature rises rapidly & continually until the rash attains its height, reaching from 104° to 105°F [illegible] 105°F [illegible]. Pulse [illegible]

[illegible]

[illegible]

[illegible]

exia, sometimes vomiting, c[illegible]

[illegible]

insomnia, & delirium are of course more or less marked. In Measles febrile movement continues up to the height of the eruption, and may reach 106°F but generally [illegible] not over 103°F, & rapidly decreases after second day. Diarrhoea & vomiting may

[illegible]

to 104° or 106°7; but on the appe[illegible]
of the eruption, [illegible]
to about the normal standard, [illegible]
[illegible]
pulse & heat of the surface, be[illegible]
nearly or quite normal. This ch[illegible]
[illegible]
when desiccation begins. Nausea &
[illegible]iting are marked: debility great.
[illegible] tongue, while it is
more or less coated in each of
these diseases, at times, in S. Fever

presents [illegible]
[illegible] At first [illegible]
projecting through the [illegible]
[illegible]
[illegible]
while, the coating exfoliates, le[illegible]
clean red surface, which, with its en
larged & deeper colored papillae, [illegible]
that of a ripe strawberry.

Sore throat is always marked in
Scarlet Fever,- save in some very mild
cases,- is slight or wanting in Measles
and generally wanting in Small Pox.
In S. Fever, the tonsils & posterior
pharynx may be reddened, with
little or no swelling but generally
there is tumefaction of the tonsils
with a whitish, pultaceous exuda

are not swollen unless complicated with some bronchial trouble.

Albuminuria is a symptom which sometimes occurs in the eruptive stage of S. Fever, but it is usually slight, transient, and of little moment. During the later stages, it is quite c

[illegible] apt to complicate it [illegible] [illegible] greatly. We had intended, [illegible] first, to discuss this symptom [illegible] rather sequel of S. Fever [illegible] length, but time admonishes [illegible] to abridge as much as possible.

There are some complications [illegible] [illegible] [illegible] the [illegible] of S. Fever very much at times. Such are Acute Pharyngitis and Indigestion. But the elevated temperature of S. Fever will at once decide for us in the former case, while in the latter, the same means may be invoked, in addition to the information derived from inspecting the throat and fauces, if the child has no col-

cult to distinguish between Scarlet Fever + Rötheln. The eruption of Rötheln is not unlike the rash of Scarlet Fever, but it appears when the [illegible] generally differs from S. Fever. [illegible] color is "rosy" rather than scarlet. Febrile movement in Rötheln is slight, & the throat and air passages are not affected.

And now we beg leave to [illegible] dissertation with the hope that it may receive no harsher criticism than this: A Thesis, written by a medi-

cal student before graduati
worse fate than a consignment
to oblivion along with the th
[illegible] of [illegible]
monuments of "useless toil," whic
find a [illegible] place [illegible]
classic precincts of the "Green [illegible]

Respectfully,

[illegible]

Feb 8th 1879

A. D. 1870

A Medical Thesis

on

# Puerperal Hemorrhage

to

The Faculty of Physic

of the

University of Maryland.

by

H. R. Bett,

In application for the Degree of

Doctor of Medicine

Hemorrhage is [illegible] one
of the most frequent and
the same time most dangerous
accidents that can occur to
puerperal women, whether
before, during or after par
turition, for it is most generally
fatal to the child, when it
occurs at an early period
of pregnancy, and always
subjects the mother to the
greatest danger at whatever
period it may come on.
Under the double aspect,
therefore, of the mother's
life and the child [illegible]
it constitutes a pathological
phenomenon, which should

[illegible]
[illegible] as possible
from the danger [illegible]
[illegible]
The management of uterine
hemorrhage may be subdivided
into the preventive and
Curative treatment. The
prophylactic measures are
as numerous as the [illegible]
[illegible] causes and they
consist in [illegible]
action of [illegible]
[illegible]
[illegible]
to a pregnant woman who
is affected with [illegible]
[illegible]

attend to certain precautions, namely the woman should be kept in a horizontal position, care being taken to have the pelvis elevated somewhat higher than the rest of the body. Feather beds should be proscribed, but whenever possible she should lie on a hair mattress that is rather hard. She bed is to be placed in a well ventilated chamber, so as to be easily accessible on all sides, in the summer season the room may be sprinkled, and the woman should be [illegible]

[illegible] the [illegible] the
chamber darkened, and the
attendants should be ad-
vised to discharge their res-
pective duties without
making any unnecessary
noise. It should endeavour
to satisfy the patient as to
her condition, and to remove
all sources of irritation and
apprehension. Calmness of
mind is not less essential
than rest of the body.
Cold drinks slightly ac-
idulated, [illegible]
lemon syrup [illegible] with
lime or orange-juice, are the
most [illegible], the [illegible]

endeavor to [illegible]
[illegible]
[illegible]
[illegible]
[illegible]
[illegible]
of if these are not sufficient
to remedy the constipation by
laxatives, And if the woman
has the least difficulty in
urinating it would likely
will be necessary to empty
the bladder by the
catheter, When the [illegible]
is not very abundant, and,
as a consequence, when there
is some reason to hope
[illegible]

abundant. the remedies to be
employed are also more active.
We may here add: the ap-
plication of [illegible]
in some very cold liquid
to the upper part of the thighs
[illegible], [illegible]
[illegible] injection [illegible] been
[illegible]
[illegible], at the temperature
of melting ice, and when
the [illegible] very strong, [illegible]
[illegible] into the [illegible]
[illegible] [illegible]
[illegible] to be [illegible] with
[illegible]
should [illegible] be [illegible] for a
long time. Otherwise, local

congestion might become mani-
fest, when it would certainly
prove injurious, if a very [illegible],
or [illegible], persistent flooding
had already enfeebled the
patient. When the skin is
cold, and the pulse small
and feeble, the refrigerants
are not indicated, and they
should be suspended at
once, if already in use.
Dr Green advises the applica-
tion of a sinapism at the
upper part of the back. He
found this remedy beneficial
in a great no. of cases, and
at all stages of gestation.
If the [illegible] are

-enumerated be not sufficient to [illegible] flooding, the injection might be given in small doses frequently repeated, which appears to have nothing more than a temporary action.

But it sometimes happens that notwithstanding the employment of remedies and [illegible] the flooding [illegible] the woman becomes pale and colorless the pulse small and threadlike, and she has vertigos &c and the violence of the symptoms endangers the life of both mother and child, and under these [illegible]

-ditions, the accoucheur has only to
choose between an application
of the tampon and termination
of the labor by rupturing
the membranes.
The tampon is a method which
cannot be dispensed with in
practice. The tampon may be
applied first to arrest any
hemorrhage that might arise
from the rupture of a vessel
in the uterine neck or in
the vagina; 2nd in a case of lacer-
ation occurring at the orifice
of the womb during labor,
and when there is no [illegible]
by a direct application to the
[illegible]

emates, in cases of premature labor,
e rigidity of the cervix and of its
spasmodic contraction, of organic
narrowing of the pelvis or of the
genital passages of the death or mov-
bility of the foetus, and, finally,
extreme exhaustion of the mother,
so that the artificial respiration may
[illegible]
that in cases of separation or of
extraction of the placenta, the
foetus should be withdrawn
[illegible]
until cease, which it does in-
[illegible]

Fourthly, when the stretching continues after the evacuation of the waters, and when the neck does not allow the hand to be introduced. There is some doubt of turning [illegible] [illegible] the [illegible]. It is also thought by many that when an [illegible] [illegible] on the neck, the lips [illegible] parts or the pelvis, prevents the termination of the labor. The obstacles which prevented earlier action exist none the less afterward. It is therefore, only when caring very little for the life of the child, in case of death, or nonviability of the latter, that

one could understand it [illegible]
and extract the placenta.
A host of other remedies have successively resorted to, viz, Horizontal position, Fresh air, [illegible] Cool acidulated drink, and ice. Venesection, if there are any symptoms of Plethora. Ergot and cold applications, with ten grain doses of ergot at intervals of ten minutes, And if these are insufficient then apply the tampon, or perforate the membranes.

H. R. Bell
Feby 1st 1879

# Thesis

On

Typhoid Fever

Respectfully submitted to the

Board Regents & Faculty of Physic

Of the

University of Maryland

For the

Degree of Doctor of Medicine

By

W. H. Barnes

of

North Carolina

A. D.

1879

# Typhoid Fever.

Without Stopping to Comment upon the Many Names proposed for this disease, I shall content Myself with that introduced by Louis, believing it to be as correct as any other, and, proceed to Notice Some of the principal Characteristics of the disease.

## Definition

An Continued fever Characterized by an inflammatory affection of the Glands Seated in the Small intestines, both agminated & Solitary.

## Symptoms & Course.

As a general rule, Typhoid fever is developed gradually: the forming stage varying from one to ten days, however Sometimes the attack is quite abrupt: with few or no premonitory Symptoms Dr. Flint has investigated all that time, from the first Symptoms like the patient takes the bed; in the first or forming Stage, the average duration of which is about five days. The Symptoms of this Stage are; chills, or chilly sensations; headache; with Mental irritability and prostration

Loss of appetite, with sometimes
vomiting; looseness of the
bowels. Sometimes diarrhoea.
Pains in the limbs, and small
of the back. Bleeding at the
nose in the majority of cases.
There is general debility, so
that, the patient is obliged
to go to bed, "and, says he
is sick", but is unable
to locate his sickness or
describe his feelings. Then
according to, Prof Flint's rule,
the patient has passed from
the first into the second
stage of the disease, and it
is then said to be fully developed.

Owing to the Mental Condition the physiognomy of the patient is obviously affected. The face is apt to be flushed at first; then it presents a dull, & stupid aspect. So far as the Mental prostration that the patient though irritable before, and fretful now seems to be very careless about his greatest concerns. There is apt to be slight congestion of the Surface most marked on the face, hands and arms. Delirium is a very constant symptom in Typhoid fever being manifested in the Majority of Cases. The Delirium is apt to be greater and may be manifested early

during the night. The delirium is generally marked in proportion to the Gravity of the disease, Violent delirium being a very unfavorable Symptom. Delirium, however, Violent is not to be considered as evidence of inflammation of the brain or its Meninges, but its cause should be sought in the morbid condition of the blood. Other Symptoms referable to the Nervous System are, a State in which the patient may be said to be both awake and sleeping. This condition is expressed by the term "Coma Vigil".

at the pseudo-somnolent state." and when this state is connected with stupor and, a loud, mittering, delirium, it is expressed by the term "Typho-Mania", Probably one cause of this condition is exhaustion produced by loss of sleep. These symptoms, however, prominent, are no evidence that true Coma will be developed, although the latter is developed in many instances, and, as a very grave symptom,

Other phenomena belonging
in this Category, are.
Movements of the tendons of
the Wrist. called Subsultus-
tendinum. Grasping at
invisible objects: twitchings;
and sometimes rigidity of
certain Muscles of the body
especially those of the neck
and face. Convulsions
occur in some instances, but
this is also a very grave
symptom. These are the
principal phenomena of
the Nervous System.

# Digestive System

Anorexia is a very constant symptom and occasionly Vomiting. Thirst is generally a very prominent symptom. The tongue is apt to be Coated more or less, thickly, but it may be only furred and Swollen. Showing the impression of the teeth at the sides. Sordes is apt to collect upon the teeth and lips. Redness and Swelling of the Gums, with hemorrhage are common attendants. Diarrhoea, or looseness of the bowels is present in the great Majority of Cases; the dejections being of a dark olive Col

color, and having a peculiar and Characteristic odor. Constipation sometimes exists but it is not very common. Hemorrhage from the bowels occurs in some cases. It generally occurs late in the disease from the ulcerated glands. The loss of blood in this way sometimes proves fatal. There is more or less tenderness in the Iliac Region and the Physician generally finds a gurgling when pressing on this region. There is apt to be more or less Tympanites.

Perforation of the intestine through one or more of the ulcers may occur. It is more likely to occur late in the disease, or, it may occur when the patient is far advanced in convalescence. Peritonitis is apt to be manifested after perforation, and, when caused by perforation, it almost inevitably proves fatal.

# Skin

Typhoid fever has a characteristic eruption consisting of papules of a red color, which can easily be felt. These papules are apt to appear on the chest abdomen or back; they generally appear about the seventh day, and continue to appear and disappear during the course of the disease. This eruption is not always present, but it occurs in the majority of cases. Sudamina or sweat vesicles and small red spots resembling flea bites are frequently observed in the latter part of the disease

## Respiratory System.

The frequency of the respiration, is, usually, Moderately increased. Slight Cough is apt to be present, but it is not a prominent Symptom, except in Complication with Pulmonary disease.

Temperature — Increase of temperature is invariably present. It is apt to increase gradually during the first four or five days, When it is apt to run up to 102-3 or 4° and even, sometimes, more. The temperature is apt to vary during the day; the minimum being in the Morning.

## Circulation

Increased frequency of the pulse is the rule with very few exceptions. The frequency of the pulse is said to bear a strong relation to the gravity of the attact. —— In some mild cases the frequency, of the pulse, has been observed, to be, lower than in health. The Character of the pulse, besides its frequency, often quick and Vibratory, but seldom hard or resisting. It becomes feble or compressible in proportion to its frequency

Urine. The composition of
the Urine is Variously affected.
It is generally scanty, and high
colored It is fair to conclude,
that Coma and convulsions,
sometimes, manifested in this
disease, are due to an excess of
Urea in the blood
Owing to the condition of the
Nervous System and the blunted
perception of the patient,
the bladder may become
enormously distended with
Urine, which, if not removed
by the Catheter, may undergo
decomposition in the bladder,
and give the patient trouble.

Duration — It is impracticable to fix the exact duration of typhoid fever. In the Majority of cases perhaps the Average duration would be between twenty and twenty five days.

Relapses. — Relapses of typhoid fever sometimes occur — when the patient is far advanced in convalescence. It, may or may not; be ushered in by a chill; The fever returns and; The patient hopes through a second attack with all the characteristic Symptoms of typhoid fever.

The Second attack is apt
to be shorter, and more severe
than the first, but accor
ding to Dr. Flint a fatal
termination is rare (See
Flints practice of Medicine fourth
edition page 880 on relapses)
however, the condition of
the patient at the time of
relapse, will have much
to do with the prognosis.
Causes. The Specific cause
of typhoid fever has not
been demonstrated
no doubt; the cause is some
times generated where
many persons are crow
ded together in a filthy
depositment

with insufficient or bad food
The cause may be transmitted
from a distance through
drinking Milk has been known
to produce it. often the cows
had drunk bad water
It would seem that any
source of filthiness is
sometimes capable of
producing the disease
and especially in towns
and large cities, in local
ities where cleanliness is
not observed. Age has some
influence. Young persons
are more liable to be effected
than the old. No age can be
said to be exempt, but it
rarely occurs in infancy

and old age. The age of greatest liability is between fifteen and twenty five years.

Contagiousness ÷ Typhoid fever is one of the diseases that is said to be non contagious however, there can be no doubt of its having been communicated by contagion under certain circumstances, although under ordinary circumstances it is not diffused by contagion. As for the seasons of the year, it shows a decided prefference for the Autumn and Winter

Anatomical Characters

There are certain important, and highly interesting lesions attending typhoid fever; indeed, there is scarcely an Organ of the body, that may not become the seat of some anatomical lesion. The most important, and the most characteristic of this disease are found in Peyer's patches, and also, in the Solitary glands of the Small intestine. The changes which these glands, are described as; Thickening, Softening, and Ulceration

The thickening, is probably, partly, due to a deposit of Morbid matter in them; partly, to hyperplasia of its elements

The glands nearest the caecum are first effected, and successively those above. Sloughing is undoubtedly due to decomposition resulting from an arrest of the circulation in the glands. It is, therefore, a natural consequence, the part being dead, nature lids its self of the dead matter just as in other parts of the body. The ulceration may extend, to the muscular and functional coats of the intestine; these coats may all slough away, giving rise to perforation of the intestine.

The healing proces of the
ulcers commences at the
bottom of the ulcer, with a
thin membrane, which gradual
ly thickens until the cavity is
filled up. This proces is,
sometimes very slow, a
fact which will account
for the continuance of the
abdominal Symptoms, after
the disease, is thought, to be
ended. The number of
glands effected varies, in
different attacks. Cases have
been recorded, in which,
the solitary glands, only,
were the seat of these
lesions, and in some
very rare instances

the lesions are confined to the large intestine exclusive. The mesenteric glands, are always effected, and enlarged, and, sometimes sloughing of these glands takes place into the peritoneal cavity giving rise to peritonitis. These lesions, are said to be, peculiar to typhoid fever. They are, always present, in a greater, or less degree, and they occur, in no other disease.

There are, also other lesions attending typhoid fever, such as, enlargement and softening of the Spleen, Inflammation of the Gall bladder, Ulceration of the pharynx, and oesophagus. Hypostatic congestion of the lower portion of the lungs; and pulmonary oedema. Cerebral congestion with effusion into the ventricles of the brain. Flaccidity and softening of the walls of the heart. The red globules of the blood, are diminished. In fact, as stated at the beginning, there is scarcely an organ of the body that may not become the seat of some anatomical lesion.

Diagnosis -

In the early part of the disease the discrimination of this from other essential fevers, is not always easy, and the physicians may not be able to give a positive diagnosis for several days.

The symptoms which are distinctive of this fever are, Slowness of the pulse; diarrhoea; epistaxis; dusky hue of the face; tympanitis; Gurgling, and tenderness in the right iliac region; Stupor, and delirium; The rose colored eruptions; and the duration of the disease.

The gradual development of the fever. and the daily increase of the temperature of the body, as shown by the thermometer in the axilla, are valuable diagnostic symptoms.

Prognosis — The prognosis of typhoid fever, by itself considered, is not very unfavorable. A fatal termination is rarely due to typhoid fever alone, but generally to complications, accidents, or pre existing disease. The Mildest Cases, are not free from danger, and

there is no Condition so
bad, that the patient, may
not be cured The most
prominent, unfavorable
Symptoms are Coma
and Convulsions; persistent
delirium; Subsultus; frequent
and full pulse; and great
prostration. These Symptoms
render a very unfavorable
prognosis. On the other
hand When there are
no serious complications;
a full Strong pulse; prostration
not great; Ataxia not great;
the prognosis May be considered
favorable.

## Treatment.

Since there are no known remedies, that will abort the disease, or shorten its course; the treatment will be expectant, and the medical treatment will be of secondary consideration.

The patient should be in a large, & well ventilated department; abundantly supplied with fresh air. Not less than fifteen hundred cubic feet to each patient, with all sources of filth removed, as far as possible. The stools should be removed as soon as voided

if possible; if not, they should be treated with some disinfectant, as antiseptic. The bed clothes, and body linen, should changed twice a week and taken into the sunshine and open air.

Special Treatment.

The patient should be watched, and the indications filled, as they arise. If the temperature rises very high, it should be combated with large doses of Quinia, and Sponging with tepid water.

If diarrhoea be persistent it may be treated with astringents. If there be restlessness, & sleeplessness. Opium in some form may be given. If the tongue is dry, and the abdominal symptoms marked; oil of turpentine, may be given, in doses from 5, to 20 drops in mucilage every two hours.

If Peritonitis occurs it should be treated; like ordinary peritonitis occurring, exclusive of typhoid fever.

In the latter part of the disease the patient should be allowed some stimulant and especially is this indicated when the pulse is feeble, quick and vibratory. Any of the alcoholic stimulants are useful, but perhaps brandy is the best. Wine, Whisky, Wine whey, Milk punch &c are generally borne by the patient. These are valuable remedies, and should always be tried when the vital powers are failing together with a very nutritious diet in the liquid form.

# A Thesis

on

## Lesions Situated at the Mitral Valve,

respectfully submitted to the

Provost, Regents, and Faculty of Physic

of the

University of Maryland

By

Edmund C. Rivers

of

Maryland,

for the

Degree of Doctor of Medicine.

A. D.

1879.

# Lesions Situated at The Mitral Valve

In the last few generations, rapid strides have been made in all professions and avocations and the profession of Medicine has by no means been behind hand in this stage of advancement, but has thrown off the clouds of mysticism and doubt which encircled it previously, and has passed from the hands of quacks and charlatans, and now numbers among its workers some of the brightests and noblest minds of the day.

This advance has made it necessary that the study of Medicine

should be further subdivided from the general division of Medicine and Surgery, further into minor divisions. One of the most important of these subdivisions, is the Diseases of the Chest, which were for a long time, as a sealed book to the profession. So much so that one of Italy's greatest physicians exclaimed, how hard it is to treat diseases of the heart but far more difficult is to find them out.

It is not difficult in the least to understand, why the important branch of medicine, with auscultation, was for so many years unknown, and

all sudden deaths were attributed to "heart disease" when we consider how very essential to our skill in their diagnosis is an accurate knowledge of the anatomical relations of the thoracic organs one with a nother and with the parietes of the chest. And besides a thorough comprehension of the physiological actions of these most important organs of the human body. We all know how very limited was the anatomical knowledge of our predecessors in the medical profession. All due to the intense animosity of the masses excited by barbarous acts, as they considered it, of dissecting

their fellow men. Even now in our advanced age, when every one acknowledges the vast importance of the profession of medicine, and how very essential is an accurate knowledge of the human body to the practice of medicine, it is with such horror, is it looked upon that this most fundamental branch of medicine is even now mostly under the cover of darkness.

As far as [illegible] extended, it was much behind that of anatomy. For many years blood-vessels were looked upon as mainly conveyers of air. Their importance was not even [illegible] until 1616 when Harvey discovered the circula-

at the bed. How was it possible to make use of auscultation or percussion with such limited knowledge? It was not until these things were thoroughly understood, and connecting the sound in each with post mortem observations, that physical diagnosis commenced to exist.

Since that time auscultation and percussion have been carried to such a high degree of perfection, that it is truly marvelous with what extreme delicacy the trained ear can detect the pathological changes which have taken place in the deep seated organs, particularly true is this of diseases of the heart.

In valvular disease of the heart in the majority of cases we have the lesions situated in the left side of the heart [illegible] at the mitral valve. The changes which occur here, may present a great many appearances differing from that of health. They are principally brought about by syphilis or rheumatism, which are liable to set up a [illegible] inflammation of the endo-cardium. The valves being such delicate structures and in such close relation with the endo-cardium, that inflammatory changes occur and the valves may be thickened and contracted [illegible]

surfaces may be only covered by vegetations of greater or less amount. Again the valves may be united at their borders, leaving merely a slit in the middle so as to form the so called, "button hole contraction." However, whatever kind of lesion we may have, they are all indicated by either a regurgitant or obstructive murmur, according to whether the blood is impeded in its course or the valves are insufficient to close the auriculo ventricular opening. Whatever be the trouble, a murmur heard with the first sound of the heart, having its maximum of intensity situated at the apex, indicates mitral disease.

If it is obstructive, it will be limited to a circumscribed area at the apex beat; but if regurgitant, it will disappear, but will be heard as we carry the ear towards the left side, on a line with the apex beat, and will be heard with almost equal intensity on the back over the lower angle of the left scapula, as it is over the precordia. Both these murmurs will decrease as we ascend upwards over the precordia, and will eventually disappear over the base of the heart. As a general rule the valvular lesion will be indicated by an apex murmur heard

just before the first sound, and after the second, ending at the commencement of the first sound.

These lesions in themselves give rise to [illegible] But soon enlargement of the heart takes place, which sooner or later, give rise to [illegible] first indications of the existence of any disease. Enlargement of the heart may occur in two different ways; by dilatation, and by hypertrophy, or the two may be combined, which occurs in the majority of cases. The [illegible] to the manner of enlargement.

That from hypertrophy being of little consequence while dilatation is extremely dangerous. Hypertrophy is a conservative change. The heart is composed of muscular tissue. Muscular tissue wherever found is subject to undergo the same changes, and when required to perform more than its accustomed work, its nutrition is increased, and it increases proportionally in size and in strength. Now when there is mitral obstruction or regurgitation, the natural flow of the blood is interfered with and the left auricle becomes distended either by the obstruction

to the flow, or by the abnormal or regurgitant current in connection with the usual venous current. This condition speedily produces pulmonary congestion. This gives rise not only to the dyspnoea, which is a marked symptom of the disease, but from it the right ventricle has difficulty discharging its contents. Then takes place the [illegible] change in the walls of the right ventricle as in the biceps or other muscles of the body exercised beyond their accustomed use, and hypertrophy takes place. The next step is that the right auricle become

distended. The systemic venous trunks, unable to empty fully their contents, and having more blood continually forced into them from the left side of the heart, [illegible] offering greater resistance to the circulation, and [illegible] requiring greater force of the contractions of the left ventricle. [illegible] completely empty itself. There occurs here exactly the same thing, which we have seen to occur at the right ventricle, and we have hypertrophy of the left ventricle. But we find that the voluntary muscles have a fixed limit to their enlargement differing in different

individual. The same thing hold good in regard to the involuntary muscles, and the heart after reaching a certain size refuses to increase and then comes dilatation. As long as the heart is only enlarged from hypertrophy, the only symptoms which we have are dyspnoea, especially on exercise, and perhaps increased strength of the hearts action. But so gradual is the increase in size, that very often the patient is not aware of any alteration in the hearts action. As the disease progresses, and in proportion to the dilatation of the right

ventricle, the pulmonary obstruction is increased, and dyspnoea becomes habitual; in some cases even amounting to orthopnoea. From the pulmonary congestion, may take place bronchorrhagia; and the [illegible] occurs in a number of cases. Dyspnoea, in the latter part of the disease, may be largely due to pulmonary oedema and hydrothorax. "Pigment Induration", due to long continued congestion, may occur, also in [illegible] respiration. The pulse [illegible], and irregular or intermittent. This latter especially occurs in connection with obstructive murmurs

The [illegible] venous system finally becomes stagnated in the pulmonary circulation, and the normal tricuspid regurgitation becomes greatly increased, aiding in the obstruction to the flow of blood. [illegible] infiltration occur in the lower extremities, particularly around the ankles, giving rise to great swelling; causing great inconvenience, and impeding locomotion. The face and body next become oedematous. The serous cavities lined by the pleura and peritoneum become filled with serum, causing great pressure on the natural [illegible] of the heart. The patient is

pulsation of the jugular vein may occur without dilatation of the right ventricle, but this is not always observed prior to the dilatation of this cavity, when the obstruction of the venous system caused by it, gives rise to turgescence of the vein in the neck which pulsate synchronously with the systole of the ventricles or auricles [illegible]
Prior to dilatation of the right ventricle, the patient suffers [illegible] from want of appetite or faulty digestion. Emaciation, which is never a very marked symptom at any period of the disease is unnoticeable. The secretion of the kidneys

are uninterfered with, and the patient to all appearances enjoys good health. But when dilatation occurs, the picture changes. Low owing to the state of passive congestion, kept up in the intestines, indigestion occurs, the appetite fails, the assimilation is faulty, and the patient suffers from more or less waste. If the congestion is kept up hemorrhage from the stomach or bowels may occur in some; epistaxis or hemorrhoids may occur in others. The secretion of urine becomes much less in amount, and the patient is now a burden to himself and if

his system are not drained drags out a miserable existence until death end the scene. But although such is the case of this disease, when left to pursue its natural course; there is modern therapeutics, if we are unable to effect a cure in any case whatever, and in some cases hardly even able to palliate the symptoms which arise still in the majority of cases, we can so successfully combat against them, as to prolong life and render it bearable.

The treatment of nitrous diseases, naturally divides itself into two divisions

first in regard to the disease itself and secondly, in regard to the complications and sequelae which result from it. As far as the valvular lesions themselves go, of course we can never do anything to change the condition. But before the conditions above stated as incident to valvular disease have taken place, we can do much by preventitive measures, by removing as far as possible pressure on the valve affected. This is to be done principally by hygienic measures: by avoiding any great or prolonged muscular exertion, by not indulging in spirituous drinks to excess, and by avoiding anything

else which is liable to [illegible]
action of the heart. At the same time
the strength and health of the patient
must be kept in good order by good
wholesome food and by the proper
amount of exercise. The mental
condition of the patient must be
attended to, to see that he does
not consider himself an invalid.
For such a state of mind would
interfere seriously with the health
of the patient. If the existence of
heart disease is discovered accidentally by the physician, he should
not, perhaps, inform the patient,
unless asked, what he should or future
the case fully. If enlargement

of the heart due to hypertrophy, exist it should not be the aim of the practitioner to lessen the heart's action for the increase is as already shown, compensative. In mitral regurgitation, the action of the heart may be aided, if necessary, by the "great heart tonic, Digitalis", thereby affording relief to the patient from dyspnoea, in a great many cases, by rendering the action of the heart more thorough, and lessening the suffering from palpitation, by decreasing, at the same time that it strengthens, the number of the beats. A new aim is also taken up the general health of

patient, besides strengthening the hearts action, we may combine advantageously with digitalis, the Tinctura Ferri Chloridi, as follow;

℞ Tinctura Digitalis:—

Tinctura Ferri Chloridi: ā ā ʒij

Aquae; ℥j [illegible]

Sig. One Teaspoonful, [illegible]

A great many cases, however, apply for treatment only after the disease has existed for some time, and the disease presents complications which should engage our attention. The most common of these [illegible] situated in the lower extremities and abdomen. These call for the same

course of treatment which would be pursued if it were one of these causes. In dropsy three methods of treatment may be pursued: first, by hydragogues: secondly, Diuretics; and thirdly, Laxatives. Combined with all proper hygiene and food: as little water should be ingested as is consistent with the comfort of the patient. The first [illegible], or that by hydragogues or cathartics is the one mostly used. Any cathartic which causes large watery stools, such as [illegible] may be used, [illegible] is preferred, because in [illegible]

it may be continued for some time, without causing very deleterious results. The diuretics however, should always be tried, before resort is had to hydragogue. The only diaphoretic worth considering in connection with the subject, is the comparatively new remedy jaborandi, which causes a remarkable augmentation in the action of the sudoriferous glands of the entire integument, and quickly reduces the oedematous condition of the body. The best form in which it can be administered is the Fluid Extract, in doses of [illegible]

reported according to the condition of the patient. Some good results have followed its use in some cases, and it has the sanction of some of the highest authorities, but it has not been extensively enough employed to determine what is its real value.

In cases where the swelling is very great, small punctures have been made in the skin in order to allow the serum to drain away. But some precaution is necessary in practising this not to allow the needle to penetrate too deeply and possibly

cause gangrene. These measures are very effective in the treatment of cardiac dropsy, and in some cases the cure is permanent, but the same cause which produced the dropsy still remains in operation, and in the majority of cases, the relief is only temporary, and sooner or later, if no intercurrent affection occurs to destroy life, the symptoms return.

Finis.

# A Thesis on TYPHOID FEVER

BY

F. H. THOMPSON

Gentlemen

In the consideration of the subject of which this thesis treats, and to which attention is respectfully called, no attempt has been made to advance any new ideas, knowing that so to do would not only be futile but self-arrogant, considering the limited source of information and experience which personally one is able to acquire in the course of so short a career in the preparatory field

of the profession upon the duties of which I trust soon to enter.
The conclusion therefore has been reached that the best that possibly could be expected from one such a novice is a simple statement of the knowledge gained by the careful study and consideration of the hypotheses, theories and established facts adduced by those who have labored longer within the sacred and illustrious domain of the "Science of Medicine".
With this introductory the notice of those to whom this may fall by way of perusal is directed to the following brief treatise compiled from information deduced from the consultation of a few authorities upon the disease known as viz:

# Typhoid Fever.

To claim that this disease is of modern origin cannot be established for evidence hardly to be doubted has been compiled and may be consulted which gives reasons to think that typhoid was known of in very remote ages. According to the writings of Zeitermeister beyond a doubt it was prevalent in Europe during the 17th and with certainty in the 18th century.

The fever is of that class of infectious diseases placed in the category of miasmatic-contagious

and distinguished by the continuous duration of the pyrexial or febrile state. From the long continuousness of febrile movement it has acquired the name of "common continued fever" Typhoid is of frequent occurrence in this country and from comparison of the two diseases, viz: typhoid and typhus it seems that the name typhoid is not appropriate_the disease differing from typhus in many essential points, although presenting many symptoms in common. Many names have been advanced for the affection and we find it spoken of under the various synonyms of: Abdominal

typhus as it is called by the German writers, and by English and American "enteric fever", {names based upon a characteristic intestinal affection} "nervous fever," "pathogenic fever", "febris entero-mesenterica" and others all of which are based upon the ground of a consideration of the symptoms attending the course of an attack. This disease is one of those requiring a distinct specific poison, to before manifesting itself, to be received into and propagated in the system.

Anat. Char.

The following lesions concisely described constitute the most important and interesting of the anatomical characteristics of the disease. There are no lesions which are without exception present, although there are some which are very constantly found. Those most frequently found are met with in the glands of Peyer and solitary glands of the small intestine, in the mesenteric glands, in the spleen &c.

The changes in these glands appreciable consists in the morbid growth of them by the addition of a

material by some said to be a super-
increase of the elements of the glands; by
other pathologists to be due to absorp-
tion of the specific matter character-
istic as a causative agent.
As the disease progresses in the
glands so affected, softening ensu-
sues, and they disappear by exfolia-
tion or sloughing, and in the pla-
ces occupied by them there remains
ulcerations; sometimes they ulcerate
through the layers of the intestine,
and the contents of the intestines
being admitted to the peritoneal
sac, results characteristic of the
occurrence of this event supervene
viz: Peritonitis &c. Hæmorrhage

from the ulcers sometimes takes place and may when foreign causes on this account. death; but generally the recurrence of this event is not followed by death. The mesenteric glands from their situation in immediate relation with the Peyerian and solitary glands become increased in size; as also does the spleen which presents an enlarged and softened condition. When recovery from typhoid takes place, the increased size of the glands gradually decreases, and the ulcers heal by cicatrization. The eruption of a papular form and familiarly known as the "rose spots" are not

found present after the decease of the patient.

Etiology.

The causative agent has not as yet been demonstrated beyond doubt. The disease may be classed with nearer approximation to the truth among the miasmatic contagious. There is much diversity of opinion whether the disease is contagious directly or not, and the weight of authority at the present period is against its direct transmission from person to person; this is exemplified by the rarety with which those in constant atten-

dance upon cases of this fever become affected. That the disease is contagious is proven by instances as those cited by Dr. Flint of the cases which occurred in the little settlement of North Boston in 1843; yet others of equal renown still bring forward examples to prove its non-contagious nature. The etiological agent whatever it may be is undoubtedly of a specific nature, and is generally introduced into the alimentary canal through the medium of the ingesta. Favorable sources of infection are contained in the excreta of patients affected with the disease, where conditions favor

able for the reception and growth of the poison exist. There can be from facts which may be adduced. no hesitancy in saying that the disease may also have a spontaneous origin caused by the miasm arising from decomposing organic matter. From the above the conclusion is that it is an affection in which the specific agent whether conveyed into the system by means either of a virus or an infectious miasm may manifest itself and may also generate both forms of the contagious material. Considering the ground of local causes there can be none

since it is a disease which is not restricted to any special locality but is diffused over the whole world. The ages of individuals, seasons of the year, mental causes (as fear, sorrow, care &c), and physical causes (as exposure to cold, excessive exertion, improper aliment, &c) may act by increasing the predisposition of individuals with tendency either great or small to the disease. Outbreaks have been attributed to the dissemination of the poison by emanations from defective waste pipes, obstructed drains, water closets, sewers &c &c. All ages are not liable to the disease in the same ratio, it is

met with in old persons very seldom, very rarely in infancy, or in a word the extremes of life are not as liable as those between the 15 and 30 year of life. It seldom occurs a second time in the same person. Relapses during convalescence sometimes occur, &c. &c.

Symptoms.

An attack of typhoid generally comes on gradually. The time at which the patient usually is unable to resist longer the effects of the disease and takes to the bed is about five days from the incipiency of the affection. The primary symptoms of

an attack of the disease are: generally as follows: chilly sensations or chills more or less pronounced recurring from time to time, frontal headache, indefinite pains in the limbs and especially about the loins, epistaxis attending upon the majority of cases, irritability, confusion of mind, lassitude, and greater or less tendency toward diarrhoea. As the fever advances in its course stupor more or less marked shows itself, & later delirium of a low muttering character almost invariably presents and which is usually most marked at night. The symptoms referable

to the digestive system are anorexia, distension by flatus of the abdomen, tenderness in the iliac region especially in that of the right side, and if the ear should be placed to the abdominal walls and pressure made a sound as of gurgling may sometimes be detected. There is an eruption which in the majority of cases may be found and when present is quite characteristic of this disease; it is of a papular nature and may be found about the seventh day after the patient takes to the bed and is usually confined to the trunk

The symptoms referable to the febrile movement are of the greatest importance and of late years have attracted the greatest attention. The fever of an attack of typhoid presents a course which is not regular or uniform. The rise of temperature in this disease is ~~the~~ gradual reaching to 103°F or 104°F to about the fifth or sixth day but never as in some otehr diseases reaching to 103°F so earlier than the days mentioned. The average duration of the fever in favorable cases is about 16 days. A difference of temperature between the morning and evening is usual

the temperature of the evening usually exceeding that of the morning by about 1° - 1½° Farenheit.

The pulse varies in frequency and quality as compared with the temperature, namely, the higher the degree of temperature the greater the frequency of the pulsations; when they exceed 120 per. min. the gravity of the case is increased. The pulse in the first stage of this disease averages in the general run of cases from 100 - 115 beats during the minutes; when the affection has advanced into the second stage they approximate to 120; a higher increase denotes a maximum degree of dan-

ger to the patient. There are may be variations as regards quality; the pulse being sometimes soft, compressible, relaxed, vibratory &c. From a consideration of the foregoing characters as appliable to the pulse the following may be deduced viz: the weaker the actions of the heart the less perceptible as regards force the manifestations of pulse.

Cough of some description is always present, and a rale of a sibilant nature may often be detected; and as in all diseases attended with fever, more or less acceleration of the respiration, more-

-ment. Perspiration may occur at various times during the disease in the course of the pyrexial state with or without amelioration of symptoms. Redness more or less apparent is common and is generally of a purely nervous nature. In the course of the fever the urine becomes scanty and of high Sp. Gr; and in the middle and latter stages it is not unusual to find the presence of albumen, and as the progress of the disease goes on the urea & uric acid are increased in amount and the chlorides diminished. Should the non-elim-

ination of these materials takes place the advent of coma and convulsions may be apprehended. On account of the indifference shown by patients sometimes, arising from their blunted mental faculties, the urine may be retained until dangerous distension takes place, or its passage involuntarily into bed ensues, or rupture &c. The subject of this disease is frequently taken with a relapse, undergoing the disease in its usual course a second time; but rarely does it lead to a fatal result. In severe cases the dicrotous pulse, sub-

sultus tendinum, retention or suppression of urine to appear as late symptoms. Convalescence is preceded by a decline in temperature of the body, and as denoted by the ~~body~~ thermometer variations before a permanent reduction to normal temperature may for a time be persistent. The duration of the fever may vary from two to four weeks, but in some cases this may be greatly protracted. Recovery from severe attacks are slow and tendency to looseness of bowels may attend the patient for many subsequent weeks after total

cessation of the fever. The disease may be complicated with many others, the most frequent of which are: Bronchitis which is seldom wanting, Pneumonia, Peritonitis - due to perforation of intestine and also sometimes said to occur idiopathically; intestinal hemorrhage; and it may be complicated by malaria as exemplified in the form of disease known as Typho-malarial fever. Death is generally attributed to complications, to accidents as perforation, haemorrhage; or to antecedent disease &c.

Diagnosis

The difficulties in the diagnosis of typhoid relate more especially to its discrimination from typhus and remittent fever to both of which it presents somewhat analogous symptoms. From remittent fever it is diagnosed by the absence of vomiting and yellowness of the skin, its slower onset, longer continuation, the mental dullness and tendence to sleep, pain in the abdomen &c.
The symptoms which relate more especially to its differenciation from typhus are as follows: the slow course of the fever, the long duration of the chronic stage, the presence of diar-

-rhoea, meteorism, iliac tenderness, and gurgling which generally are not present in typhus, and when are usually of a slight degree; the occurrence of papulae of a rose color in typhoid and the later appearance of the eruption, whereas in typhus the eruption is of a maculated form. The later occurrence of delirium in typhus. There are no pathognomic symptoms characteristic of typhoid, still except in slight or irregular cases the difficulties attending upon diagnosis are not insurmountable. The age of the patient, time of the year, gradual increase of the fever, its long duration as a strictly

continuous fever, the enlargement of the Spleen, and the final change of fever to a remittent and intermittent form, may be taken as points of diagnosis. In the early part of an attack of typhoid a diagnosis is not easy to be made. &c. &c.

## Prognosis

In making a ~~diagno~~-sis in this disease there must be taken in to consideration the possible intervention of symptoms, complications, accidents severe in their nature; and upon them an opinion of the result of an attack either of good

or bad import may be held out. The average fatality of the disease is about one in twenty, though the death rate varies greatly under different circumstances, etc, etc.

## Treatment

The treatment of this disease in general is similar to that of the essential fevers as a group. The general principles of treatment should be of a sustaining rather than of a lowering nature. The expectant plan of treatment appears to be indicated as the best therapeutical measure. It is doubtful if a

case of this fever be ever arrested in its course by measures resorted to for the definite purpose of aborting an attack; sometimes from the means employed an attack appears to end prematurely. The object then in the treatment of this disease should be to aid patients by means employed to place them in the best possible conditions tending to recovery. As conducing to recovery remedies too numerous to tabulate, in a paper of this description, have been indicated; of which those which have met with the most favor are

opium, mineral acids, alcohol, terpentine &c. The mineral acids are claimed to diminish mortality on the ground that in this disease the blood is in a state of superalkalinity and by the administration of the acids this is neutralized; their employment is not advised by our eminent Prof: of Prin. & Prac. of Medicine on the ground that he considers they increase the irritability of the intestines and thereby do harm. The use of cold water applications, as by baths, wet sheets, sponging &c. do good by diminishing the exalted temperature

by the abstraction of heat. This method of treatment is indicated where the skin presents a hot and dry conditions.
Supporting vitality by a properly regulated dietetic course is essential as a measure of treatment. Of all the articles of diet, milk preeminent by is the most appropriate. Alcoholic stimulants are tolerated sometimes in very great quantities without the intervention of its physiological effects as seen in a state of health. In majority of cases stimulants are not called for in the beginning

of an attack of typhoid and when employed should be continued with or withheld according to the indications of the symptoms subsequent upon their administration. Favorable conditions of hygiene as viz: free ventilation, proper temperature of apartment, cleanliness &c are important in the management of this disease, &c, &c.

Particular symptoms and events call for appropriate treatment. When high fever at onset of an attack nitrous powders may be administered at intervals of

two hours until abatement, but this form of medication should not be continued for any great length of time; likewise for the same purpose {abatement of the high temperature} veratrum viride and aconite may be employed. Increased frequency and lessened force of the pulse call for stimulants, or tonics as wine whey, preparations of bark rc. Symptoms necessitating the use of sedatives may be met by Dover's powder, Bromide potash, Chloral rc. Abdominal tenderness, heat rc may be reduced by cold or warm applications

where tympanitic terpentine stools particularly are indicated. Red and dry tongue, tympanites recall for terpentine internally; it is indicated more particularly after onset of fever has ~~advanced~~ passed into advanced stage. The diarrhoea generally attendant upon this disease unless excessive does not require special medication. Quinia as an article of administration has no special efficacy in the treatment of typhoid, but acts as a tonic. Distended bladder should be looked for and attended to in this dis-

ease when patient is in a low state, because of the indifference paid by patients to this function on account of the effects of the disease on their mental powers. When peritonitis supervenes the bowels should be kept perfectly quiet by opiums. When disease is complicated the indications for treatment relate to the manifold cases &c. &c.

With respect submitted
F. H. Thompson.

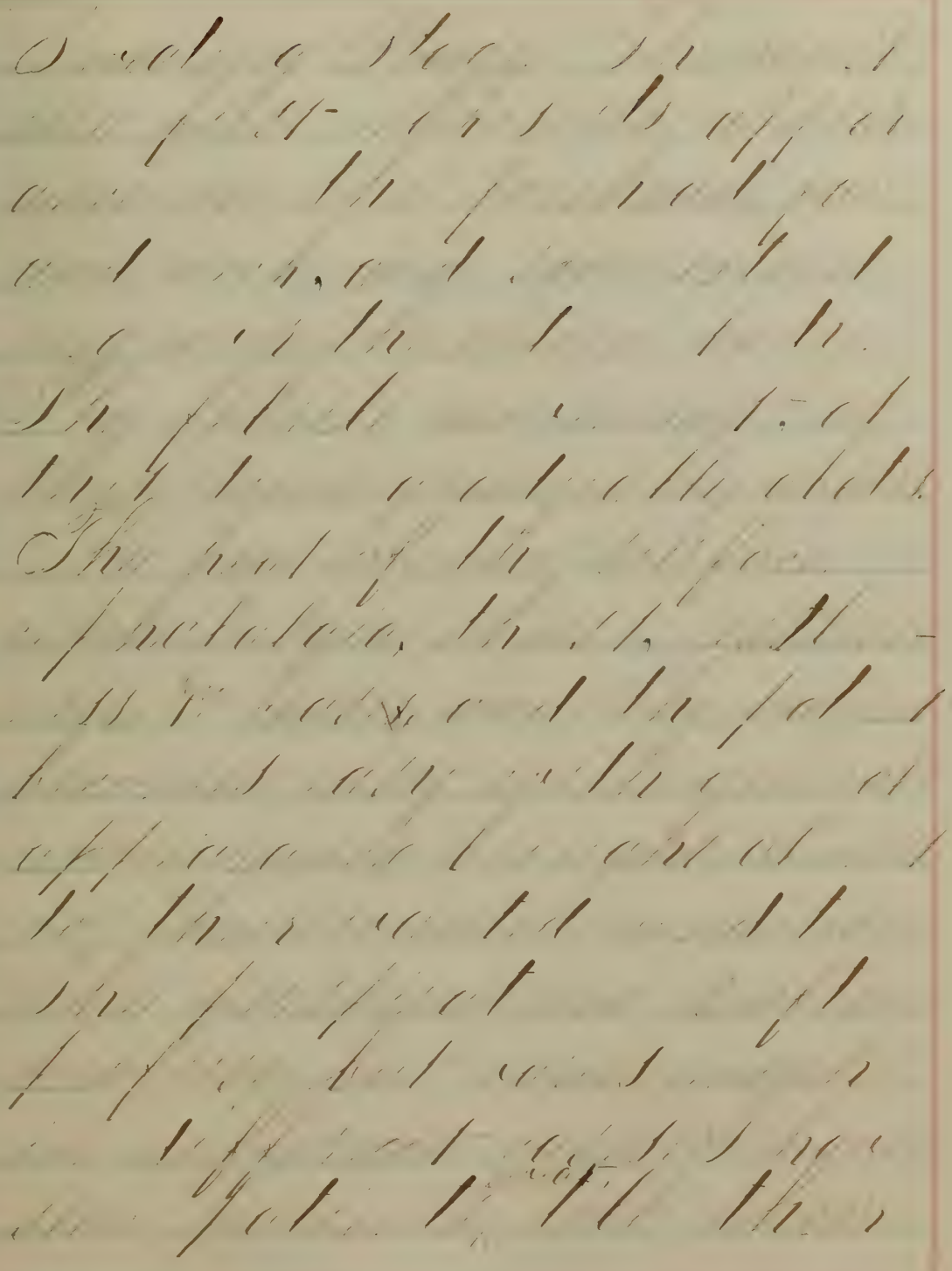
Feb. 14th, 1879.

and may even go higher

[illegible] accelera-

[illegible] pain in the head, but

[illegible] ually disappear.



[illegible]

Diagnosis- [illegible] cases, the diag[illegible] no difficulty. [illegible] tial diagn[illegible] [illegible]mittent [illegible]

[illegible]

Thesis on Pneumonitis

Respectifully submitted to the Faculty of the University of Maryland, by the candidate forthedegree of M. D. submitted to their approval, by José L. Romero of the clases 77-78 and 78-79

All objects in nature have a marked grade according to their importance and the more or less benefit that humanity can obtain from them, in the same way all branches of human knowledge, ought to be found and in effect are found, graded relatively to the good which their cultivation may acrue to man.

Little satisfied are we with those who teach that life ought to be a series of uninterupted suferings, we are opposed to this doctrine and on the contrary, see in it (life) one of the greatest works of Nature

We belive that the branch which teaches its preservation, ought to occupy the uppermost on the tree of knowledge.

Medicine, the science and art whose object is the direction support and

conservation of Life, fenomenon which begins in the gradual and progresive development of a microscopic cell, and ends in an intelligent being capable of comanding the universe, and even throwing himself into the space of the heavens looking for the cause of his existence.

If the fatal influence of an erroneous philosophy, separating the physical from the moral man, existed in the middle ages, it exists no more and Medecine uncontrolled no longer, is making rapid progress towards benefiting suffering humanity.

We offer as a proof that Medecine ought to occupy the very first place, that it is the oldest science known, it was of such importance that as early

as the time of the Ptolomies of Egipt, the Alexandrian school instituted a series of anatomical studies, which the errors of all Europe did for a time put a stop to, but which afterwards and since has been unable to control.

Having allready occupied more room in these pages on matters hardly apertaining to the question, we propose to comence writting a so called thesis, which we are sorry to say, we are hardly able to do justice, and which we certainly would be excused from, writting, not account of laziness but being a foreigner, our vocubulary of this language we can not find the necessary words to express our ideas, and not having had any practice, we will have to write of things, that do not belong to

us, but which we have gathered from books and the lips of eminent professors, but the imperative rules of the University compels us to write something, so we have taken for a subject, one of the hundreths which the Practice of Medecine offers for consideration, and the one we have selected for a theme is

Pneumonia

Caracterized by an inflamation of the lung tissue

There are several varities so we have the Single the Double and the Lobular

It is generally found to occur in temperate climes and more so in the Spring of the year than any other season, generally from exposing the heated surface of the body to a chill.

This disease may be Idiopathic or from Traumatic causes.

As in some cases it may come from an inflamation in some other part, it may follow a bronchitis, influenza, dyptheria, hooping cough or from a pleuritis, or the inhalation of some irritating gas, the passing into the bronchi of vomited matter, as it has also been found after embolg in the pulmonary artery.

Heart disease, kidney troubles, erisepelas, reumatism, and other inflamatory troubles also tiphus and tiphoid, predispose to it.

All ages and sexes are liable to it, the working classes, are generally the victims of this malady, and this is accounted to the exposure which they un-

dergo having to be exposed to all sorts of weathers, those who have had an attack are liable to another.

The Simptoms are generally ushered in by a chill or state of depression, followed soon after by a fever, opression in breathing dull pain in the chest, with sometimes a short cough, and at times delirium.

The pulsations of the heart are increased in frequency during the febrile stage of the disease, and seldom keeping pace with the respirations. In adult the pulse may go up from 80 to 120, in children it may rise above 200. Extreme rapidity associated with feebleness and irregularity, are to be regarded as unfavorable signs

During convalescence the pulse may fall bellow the normal frequency, while the disease is in progress the sistemic veins are apt to be overloaded, and the surface of the body asume a dusky hue.

The tongue is coated brownish and dry, sordes sometimes accumulate upon the teeth, loss of apetite accompanied by constant thirst, the vowels may be regular or not affected at all, or there may be diarhea or disentery

During the first period of pneumonia the face is more or less flushed, and more or less livid, an herpetic eruption about the lips is seen sometimes, while the skin may be dry or hot with a profuse perspiration.

In persons adicted to drink the mer-

vous simptoms asume all the caracterstics of delirium tremens, or suddenly becomes unmanageable, or the paroxism may abate as quickly as it made its presence, or the delirium may pass into coma and death, there is sometimes loss of control of the bladder and rectum.

The temperature of the body is generally high reaching to about 104 or 105 degrees by Fahrenheit thermoter, in the axilla, this especially about the fourth or fifth day.

Expectoration comences about the third day of the attack. The sputa which so caracterizes this disease, is composed of blood, mucus and limph, mixed together, the so called lateritious or rusty sputum of pnaumonia, in it we find and excess of the cloride of sodium, while the urine will con-

tain more urea than natural, but will be found deficient of the chlorides.

The attack reaches its height about the fifth or seventh day; the temperature generally declines after this, and in favorable cases the simptoms subside. In unfavorable the prostration and opresion in breathing increase, the coughing is deep expectoration more abundant and lastly purulent. Death may occur before the twentyeth day, but seldom before the six

Stages. Authors describe three. First that of congestion, with the beginning of exudation. Second. Marked exudation with red hepatization. Third. Gray hepatization with purulent infiltration.

Phisical Signs. They are unlike in the three stages.

By auscultation. In the first day or two in the first stage, we hear the fine crepitant rale. In the second no rale, but bronchial respiration and bronchophony with increased vocal fremitus, In the third stage, coarse crepitant or mucous rales.

By percusion, In the first stage slight dulness of resonance in percussion. In the second. Marked dulness, a great deal more so than in the first stage. In the third most decided dulness

When resolution follows the second stage as in those cases that recover from the disease at this time, the bronchial respiration always gives away to returning fine crepitation, and the dulness of resonance on percusion gradually fases away into the normal sounds.

It may terminate in death on the second stage from asphisia, or from exhaustation in the third stage, after the third recovery is uncomon, as it is very often followed by gangrene or abcess of the lungs.

In making post-mortem, the lower or middle lobe is found most often the seat of the desease. Should death take place in the first stage, the lung will be found dark red and inelastic, filled with blood or bloody serum. It will still float in water, is heavier than healthy lung, but easily torn.

In that of hepatization, that is the second stage, the lung has a resemblance to the liver, and is found to be spongy no longer, and the fin-

ger may with ease be trust its substance, when altogether hepatized, it will not float in water, from the cells being empty of air, this having been replaced by coagulable limph.

In the third stage, unless there is resolution by absorption, we will find degeneration of the exudation, This may come about by suppuration, granulation or softening, sometimes the pus is infiltrated or an abcess forms. In gray hepatization, the lung is solid and impermeable to air, when cut on section red and white points are seen, when it has then the general apearance of red granite, It sinks in water but it is more easily torn or crushed than on the second stage.

Diagnosis. The afections with which pneumonia has been confounded are ptisis pulmonalis, pleursy and bronchitis. In children collapse of the lung may be mistaken for Lobular pneumonia, and idiopathic mengitis hard to distinguish from pneumonia.

From pleursy it is distinguished by the sharp pain belonging to the latter, and by the absence of the crepitant rale and rusty sputa, belonging to the disease which we are trying to describe. From ptisis by the acute violence of the attack, its sudden onset rusty sputa and fine crepitation. Latent pneumonia complicate fevers

Prognosis. Simple pneumonia

of one lung, in a young person whose health and constitution has always been good, ought under favorable circumstances and judicious treatment recover from this desease. In aged and debilitated persons it is very dangerous and double pneumonia is so at all periods of life, although I have often seen recoveries reported in some of the journals.

Statistic reports have shown that double pneumonia will occur in one case out of every eight

The signs most apt to show that the disease will be fatal are expectoration of pure blood, in the first stage and albumen in the urine in the second stage.

Treatment. Most authors on Practice of Medecine, agree that hitherto there has been too much meddling with this disease, and very many go to one extreme or the other some saying that no treatment at all is needed, while others are a little more lenient and say that hugiene and rest is all that is necesary and the cases will pull through, while others belicbe in a general antiphlogistic treatment.

As this writers are men of great observation, and eminent practitioners, it is very hard for the medical student to be able to tell which one is right or not, but after reading carefully the works of some of these author's, we come to the conclusion

that the treatment of one author is just as good as that of another, provided that they are made use of in the right place, and time.

We would think it a criminality in that phisician who would follow the routine of bleeding every patient with pneumonia whether needed or not, or he who in every case treated his patients with only rest and hygienic sorroundings.

We are well aware that blood letting has ben often carried too far but this is not a reason why it should be discarded alltogether, thedecine has made rapid strides within the last fifty years and under the present state of knowledge, it is easier to

make a diagnosis than it was then, and although there has been a great cry against bleeding, we find it slowly creeping back, not as a destroyer of life, but as a means of preventing, of helping to cure, and curing disease, not coming to occupy its former place of routine, but rather to occupy its useful and life saving place that of necesity

After trying to find out as much as possible about the disease in question we come to the conclusion that to treat simptoms as they arise is about the best method that we can follow

This will be found as good as any, purgatives of Citrate of Magnesia or Rochelle Salts or some other vigorous

purgative, will do a vast deal of good at the begining of the disease, unless contraindicated by some inflamatory irritability of the intestinal canal.

Counter irritacion over the the seat of the pain, or cups or leches. Bloodletting in the first stages if indicated by the following, a hot skin, a hard or opreed pulse great pain and dispnea, and more or less dark or flushed face

Tartar emetic in dose of gr ½ to ¼ every two or three hours during the febrile stage of an adult. Great many cases require stimulation from the begining of the attack by beef tea whiskey brandy or wine.

The patient in every stage

to be placed in the best hygenic surroundings, allowing air to enter in the apartment, but not placing the patient in a draft where they may be chilled.

The third stage in all cases requires diferent treatment

In malarial district, great benefit can be got from Quinine

In typhoid pneumonia, we will suport from the begining of the attack.

We think that this pages have been allready blotted enough, being but little familiar with the decease, except in a theoretical point of view, we will not state any more of the way of treating this cases, and we would feel only justified in so doing, when our bedside knowledge, has become

a little more practical than it is at present.

Having written nothing, but what really is somebody elses property, we close hoping that the Faculty will pardon its many faults, and that it will take into consideration, the little practical knowledge of the writer, and that although our knowledge is limited at present, it is our ambition and hope, to honor the old University and Faculty which will honor us with its diploma

Jose L. Romero
of Matanzas
Cuba

Baltimore Md
Feb 14, 1878

An Inaugural Dissertation

on

Intermittent Fever.

Submitted to the

Provost, Regents

and

Faculty of Physic

of

For examination by

William A. N. Watson of Md.

For a degree of

Doctor of Medicine

Class 1878-79.

# Intermittent Fever

Definition - from Latin Febris Intermittens
is a fever in which a paroxysm with
a complete apyrexia in the interval
succeeds - Periodic fever. Ague.
Pathology - When the system has been exposed
to the influence of miasma, symptoms of dis-
turbance may sooner or later show themselves. Some
persons may be exposed to miasma without
suffering from periodic fever, it is found
in such cases the poison is presented in
such a concentrated form and then
the blood is very little change that the
organs become tolerant to it, to such an
extent at least that febrile phenomena are
not excited in regular intervals so as
to expel it from the blood. On the other
hand persons in perfect health may be
exposed to the action of the poison in

such a form as to compell them to retire from active life for a time.

Varieties — Three most common are as follows

1st Quotidian — Fit every day, generally in the morning last from 10 to 12 hrs.

2nd Tertian — Fit every other day, generally at noon last till evening.

3rd Quartan — Fit every fourth day, generally afternoon this type has the longest cold stage but shortest fit, there are other varieties as double quotidian tertian and quartan. An Interval — space between the beginning of one paroxysm and beginning of next. Intermission — space from end of fit till beginning of next.

Causes. That which tends to depress the physical or mental powers, by so doing rendering the system liable to the influence of miasmatic poison, is the predisposing cause.

The exciting is undoubtedly due to the exhalations that are given off from the soil. Sometimes an ague is produced by an instrument being passed into the urethra, irritation is the cause of it.

Symptoms. after certain premonitory symptoms, the most prominent are nausea, languor, lassitude, and muscular pain down back and legs.—(The cold stage commences first a feeling of chilliness in extremities, then in back, then unpleasant feeling of coldness over whole body, the skin is rough (cutis anserina), nails become blue; rigors more or less severe, rapidly succeed each other. In hot climates the patients asks for more bed-covering, and then does not get any warmer, sometimes there is urinary irritation.

the patient passes at short intervals a considerable quantity of highly acid urine, void or nearly so of pigment.
The patient may be shivering so as to make everything around them shake, the temperature of the blood normal. a thermometer in axilla temperature go to 105° to 106° Far this sudden rise is common to all types of fever Periodicum, cephalgia is complained of, mind is inert, patient is drowsy, duration of stage variable. Second or stage. Flushes of heat at first alternate with slight rigors, after a little a grateful feeling of warmth spreads over the body, off goes the covering as the patient it has no more need for bed-covering the respiration although still hurried is more regular, when this stage fully developed temp. 107° to 108° Far, after this passes off

there is a sensation of nausea even emesis cephalgia & thirst are complained of patient tosses uneasily in a burning fever, here come Sweating Stage. Perspiration first on brows face and gradually over the entire body, until perspiration is rolling freely, the pulse falls in frequency and strength, respiration nearly natural, temperature falls to normal cephalgia first abates and then fades away. Condition Urine. The urine is increased during the cold and hot stages, apparently from the presence of a large quantity of free acid is very irritating, Convalescence is ushered in by a diminution in its quantity, it is scanty, alkaline or neutral, orange color deeply, intelligent patients note the fact, tell the Doctor then say no more Quinia for me.
The blood is changed from beginning to end

and probably before the attack began.
the red corpuscles & fibrin are diminished, the coagulum is larger and flabbier than in health much darker, in extreme cases nearly black, on exposure to air, instead of usual color becomes cherry-red, serum dark & muddy, sometimes oily appearance, the skin after a time becomes of dirty pale or yellow hue and may become permanent it is very characteristic in the malarious district of this State and probably of other States. Persons suffering from ague are depressed in spirits and are incapable of mental or body exertion to a certain extent their appetite and digestion are impaired and liable to have diarrhea from any slight cause. The spleen is much enlarged and is apt to displace the heart upwards and thereby cause a mistaked in heart trouble being

diagnosed when in reality the heart is perfectly sound. The heat-generating power is impaired, and they suffer from atmospheric changes.

Diagnosis. Remittent fever is the only fever which is likely to be confounded with Intermittent fever. The diagnostic difference is in intermittent the intermission is complete, and not complete in remittent. In solid structure. Death in an uncomplicated case is so common that post-mortem opportunities for post-mortem examination are afforded, inflammation of stomach and duodenum are one of the most common appearances found after death, sometimes circular ulcers are found in the stomach & duodenum, the liver also suffers as does the spleen, in recent cases the spleen is found to be

so softened that its texture breaks up while begin examined, occasionally 'tis reduced to black-colored blood pulp, enclosed by its capsule. In chronic cases the organ is so enlarged as to extend down into the pelvis also to the right of Linea Alba this enlargement on percussion in the cold stage acts as a diverticulum that is it enlarges with the fit and decreases with the fit, after a while it loses its elasticity and the enlargement becomes permanent. Commonly called Ague Cake. The Liver is found in various stages of congestion in recent cases the texture is soft of a dark purple or black color, in chronic cases it is enlarged the cell-formation in the spleen and liver are increased on account of the malarious poison acting as a source of irritation

there is a deposition of black pigment
in the spleen, liver and kidneys of
persons dying from the poison of Malaria.

Prognosis. In uncomplicated cases good, with rational treatment, the danger is from the malarial cachexia and organic changes to which it gives rise and when it is sudden the dis- is less severe and it is supposed by some it is a good sign that the ague is broken up at the time, the appearance of a deposit from the urine, herpetic eruptions on the lips, a disappearance of praecordia, anaemia and nausea at the return of the paroxysm are conjointly favorable signs, and may be separately.

Complications. Some of these are as follows - Diarrhoea, Dysentery and Typho-Malaria where it takes upon itself the form of ague as well as typhoid - doubted by some practitioners

Treatment. In intermittent fever when the tongue is foul, stomach oppressed by food, a mild emetic does good in relieving the stomach of that which produces the oppression and also cleanses the tongue, by soothing hastens reaction. a mild purge relieves the congested state of the bowels also prepares the way for Quinia. If there is much urinary irritation you will great relief in Bicarb. Potassii a grain or two grains with Tinct. Opii Camph. one or two gutta.
during the cold stage the patient should be kept warm if not by the use of bed-covering bottles filled with hot water should be placed around him at same time give some warm demulcient drink, as a general rule little interference is required, in hot stage there is seldom or no interference necessary only see to it that the bed-covering is removed

as reaction advances cooling drinks should be given to relieve dryness of mouth and quench thirst or in all probabilities crushed ice would be better, if in a debilitated condition from any cause the patient must be watched from the begin of the sweating stage least symptoms of collapse should then supervene, in which state I would in all cases use the supportive as well a stimulating treatment, this paroxysm ended I would strive and that very hard to prevent a repetition by the use of Quinia in large divided doses between the end of the sweating stage of one paroxysm and an hour or more before the next paroxysm. Quinia is best given in solution and in order to produce solubility more readily used a few gutta of Dil, Sulphuric Acidum, Its bitterness is best

covered in Syrupus Auratii Cortex, if emesis should be produced by administering it by stomach no time should be lost, but wash the lower bowel out well and administer by rectum in combination with beef-tea or a little thin starch, and if successful in preventing a repetition of the ague, the patient has gained considerable, but because we have done so well in thus checking the ague, I am not compelled to stop the used of Quinia but keep on with it for a month or probably longer. After all this treatment might fail to check the ague or paroxysm and only postpone it for an hour, or probably two hours. I should then give Quinia in larger doses you now and then find cases on which it has fail to have any effect upon the ague in the least and best

course to persue then is to have the patient removed from the malarious district just as speedily as possible and then advise use of Quinia. Best substitute for Quinia in treatment of agues is Arsenic, and it should be watched carefully for any of its constitutional signs - as watery mouth, tongue having a silvery appearance, redness of eyes, oedema of lower-eye-lids and should be always given after meals. But having never used it myself but it is highly spoken of by our Prof. of practice, if I ever have cause to use it I shall begin with the 1/16 of a grain of Arsenious Acidum and gradually increase it to the 1/12 gr always in pill form with bread crumbs. The diet should be a supportive and also of a nutritious character such as beef-tea, wine whey and essence of meat

The complications of intermittent fever should be look after and treated, and the two most important are enlargement of Spleen and Liver, and it is said that they have been reduced to their normal size in a short time by the use of an unguentum made of the Biniodic of Hydragyri applied once or twice daily

Respectfully submitted
Wm. A. T. Wayson

Class of 78-79.

Mild Cathartic

℞ Hyd. Chlo. Mit. grs viii
Comp. Jalap. Pulv. grs vi
Ext. Hyosciamii grs ii
M. Ft. either into Pulvis or Pillulae
S. Take at a dose

As Tonic Pill

℞ Sulph. Quiniae grs 10
Hypophosphite Ferri grs v
Sulph. Strychnia gr 1/16
M. Ft et D. Pillulae x
S. one every 3 or 4 hrs

A Thesis

Respectfully Submitted

To the Faculty of Medicine

of the

University of Maryland

By

John H. Lacy

M. D.

1879.

# Intermittent Fever.

Intermittent Fever or Ague and Fever, as it is more popularly called, is a disease of the greatest importance to the ordinary practitioner and more especially on account of its frequency than its dangerous character, has received an unusual amount of attention from the Medical Profession. It can scarcely be expected that one who is barely entering upon the threshold of the Science of Medicine will add any thing new to a subject which has been

as thoroughly discussed.
We shall therefor content ourselves with a very cursory review of the Etiology, Clinical History and Treatment of the disease, without flattering ourselves that we have done any thing more than kneaded over some of the opinions of others.
The disease is usually tho' not invariably confined to malarial regions - which are low, wet and marshy, with an abundance of vegetation; and it seems to depend for its existence upon a microscopic vegetable

germ — the nature of which has never been certainly ascertained. It was once believed that it was due to ordinary vegetable decomposition, but that theory is now thought to be untenable as the disease is found in sections where there is little or no vegetable decomposition and in others where this condition is most abundant it never occurs. Dr Salisbury of Ohio gave the subject a good deal of study and claims that he has discovered the prime cause of the disease in the

introduction into the system of spores, germs or cells emenating from plants belonging to the lowest species of vegetation and further more that these germs had been discovered in the saliva and urine of persons affected. The usual mode of introduction is through the lungs though it has not been disproved that the poison may also be absorbed with ordinary food.
Although the theory of Dr. Salisbury has not been corroborated by further research, this explanation

of the Etiology of the disease
is accepted by many
The period of incubations is
extremely uncertain and
seems to depend to a great
extent upon the susceptibility
of the individual. For instance
should we expose three healthy
persons to the malarial poison
— one may be affected within
a few days — another within
a few weeks or months and
the third not for a year
or possibly not at all.
The writer, himself after liv-
ing from earliest recollection
in a non malarial region,
was exposed for more than

a year in an extremely ma-
larial section of the Tide-
water country of Virginia -
where almost every one &
was subject to the diseases -
and escaped it entirely.
We have then a system impreg-
nated with the malarial poi-
son and it remains to be seen
what will be the result.
The premonitory symptoms
are rather capricious tho'
they may be well expressed
by the French term malaise
After this follows the paroxysm
as it is called, which consists
of three stages - the cold
- the hot and the sweating

stage. The first or what is known as the Chill. begins with coldness of the extremities which gradually increases, extending over the whole body, until the patient seems to all appearances to be suffering from extreme cold. This stage may last from a few moments to an hour. When its duration is very great and the patient seems in great danger it is usually called a congestive chill — tho' it is evident that all chills are congestive no matter how slight.
The explanation of this condition

is that the poison acting directly upon the vaso-motor system of nerves causes a decrease in calibre of all the superficial arteries, thus sending the blood into the internal and larger vessels. The result of this is of course a coolness of the surface, but an increase of heat in the body. Thus it may be properly said that the chill is the heating and the fever the cooling process - a rather paradoxical statement to the unlettered. It must be mentioned that the cold stage is sometimes entirely wanting

and then the patient is said to have had a dumb ague. The second or hot stage is characterised by a rise of fever - the skin becoming hot and the face flushed.
The thermometer shows an increase of heat from 3° to 5° Fahr. It is now evident that there is no longer contraction of the superficial arteries, but on the contrary a dilatation. This is often called the reaction. The third and last is the sweating stage.
The fever disappears and the surface of the body is covered with perspiration, beginning

on the face and then extending over the whole body — after which the patient is apt to fall into a refreshing sleep. Now comes what is called the Intermission which lasts till the next paroxysm.
It is a curious fact that the diseases appear in three different forms. The first usually described is the Quotidian in which as the name implies the paroxysm occurs daily — the next is the Tertian in which the paroxysm occurs on every third day & the last is called the Quartan in which the it happens on the fourth.

The most common of these
are the Tertian & Quotidian
& Tertian respectively and
the last is Comporatorty rare.
Much more could be said
in regard to the Clinical History
of Intermittent Fever, but
owing to shortness of space
we will pass on to the Treatment.
Before doing so however, men-
tion may be made of the func-
tion of the spleen in this
disease. For a long time the
office of this organ in the e-
conomy was entirely unknown,
although theories in regard
to it were not wanting.
Some think it seems quite

probably that it has largely to do with the formation of the white-corpuscles of the blood and also that it affects in some way the disintegration of the worn-out red-globules. Others believe that it is a kind of safety valve in the very disease under consideration — that the internal congestion which occurs during the paroxysm is relieved by the concomitant engorgement of this organ. Whether or not this view is the correct one it is certain that the spleen is greatly enlarged in cases of Intermittent Fever

It ought also to be mentioned that there is scarcely a disease known that Intermittent Fever does not simulate; so that the necessity of making a correct diagnosis is of no little importance. We will now pass to the Treatment and to Physicians who live in malarial regions this is of the greatest importance, as often the majority of their patients, sooner or later are affected with this disease.

The earliest remedy used was what is usually known as, Peruvian Bark; which was administered in the form of an Infusion; but owing to the

large size of the dose and its intense bitterness, it soon gave way to the use of Quinia which was found to be the active principle of the Bark

This is undoubtedly the most efficient remedy ever employed in the treatment of Intermittent Fever and so potent has it proved that it has been numbered among the few specifics that Medicine boasts of.

No preparatory treatment is necessary, although many successful practitioners invariably begin with a mild purgative. The proper time for administering the Quinia has

long been a matter of discussion. Some think it best to give grx doses ter dix until the necessary effect is produced. Others hold that it is most effective when given in grx to grxx doses just after a paroxysm. (Again a distinguished Physician living in a malarial part of Virginia, invariably gives grx from four to six hours before the time of the expected paroxysm and claims that he has never failed. The explanation of this is that the poison in the system is constantly undergoing a progressive change and the paroxysm which occurs when

a certain point is reached is said to be an effort of nature to throw it off and it has been proved that Quinia given at this time acts most beneficially. The exact mode of its action has never been ascertained. The medicine may also be administered hypodermically some half hour before the expected chill in the form of the Hydrobromate and this manner of delivery is most highly recommended by Prof. Howard. No stress need be laid on the exact form of its administration. It may be given in solution - in pill, and when not well borne by the stomach may be given per enema.

There are other alkaloids of the Cinchona bark deserving mention amongst the most prominent among these is the Cinchonidia or as it is usually administered the Sulphate of Cinchonidia. It is coming into general use very rapidly, as in larger doses it takes the place of the Sulphate of Quinia & is much less expensive. With this we close our rather hasty review of the Etiology - Clinical History and treatment of one of the most common diseases known to man

— Intermittent Fever.